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SOAP

MARCH 1937

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GERANIUM

African • Bourbon • Turkish
(Of ascertained Purity)

•

Geranium and Ungerer—both great favorites with Soap Perfumers. And very likely for the self same reasons. With both, you find dependability, excellent lasting qualities and full conformance with your expectations.

It is a form of formula insurance to deal with Ungerer.

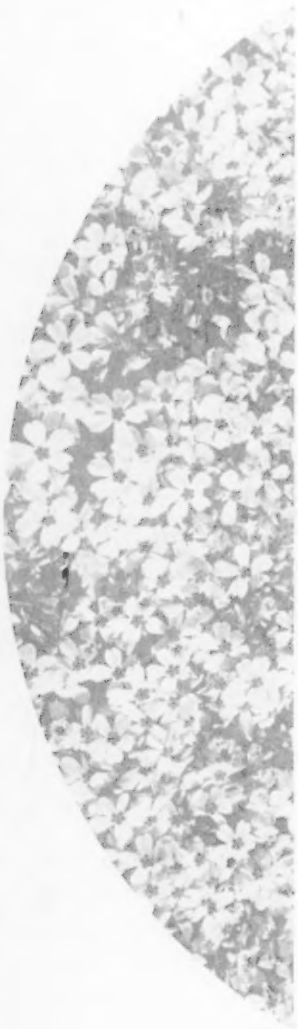
UNGERER & CO.

13-15 West 20th St., New York

Philadelphia Boston Los Angeles Dallas
Chicago St. Louis San Francisco Toronto

SOAPS
INSECTICIDES
DISINFECTANTS
CHEMICAL SPECIALTIES
SANITARY SUPPLIES
POLISHES
CLEANERS

Soap Perfumes



ODOR is perhaps the most important factor in the successful merchandising of toilet soaps. Competition being what it is today, the up-to-the-minute soap manufacturer is insisting on the very best possible perfume available, at a price within reasonable limits.

Our laboratories, based on the long experience of our principals Chuit Naef & Cie., Geneva, Switzerland, are turning out remarkably fine floral and bouquet odors for toilet soaps at surprisingly low figures.

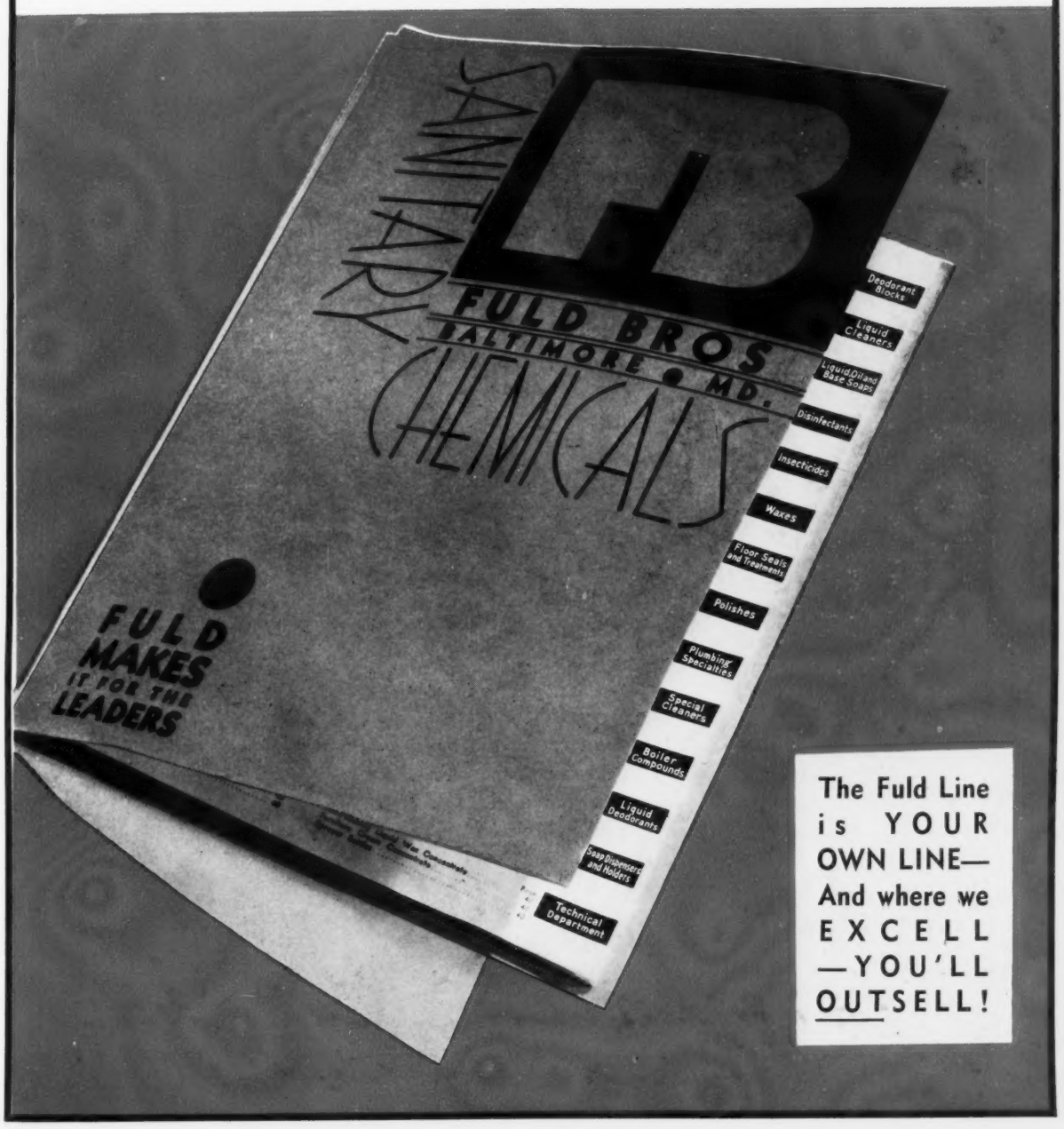
Included in our most recent successful developments are GARDENIA, JASMIN, GERANIUM, LAVENDER, LILAC, FOUGERE, BOUVARDIA, MUGUET, ROSE, DAMASCENA, and numerous bouquet types.

Samples and Quotations on Request

Firmenich & Co., Inc.

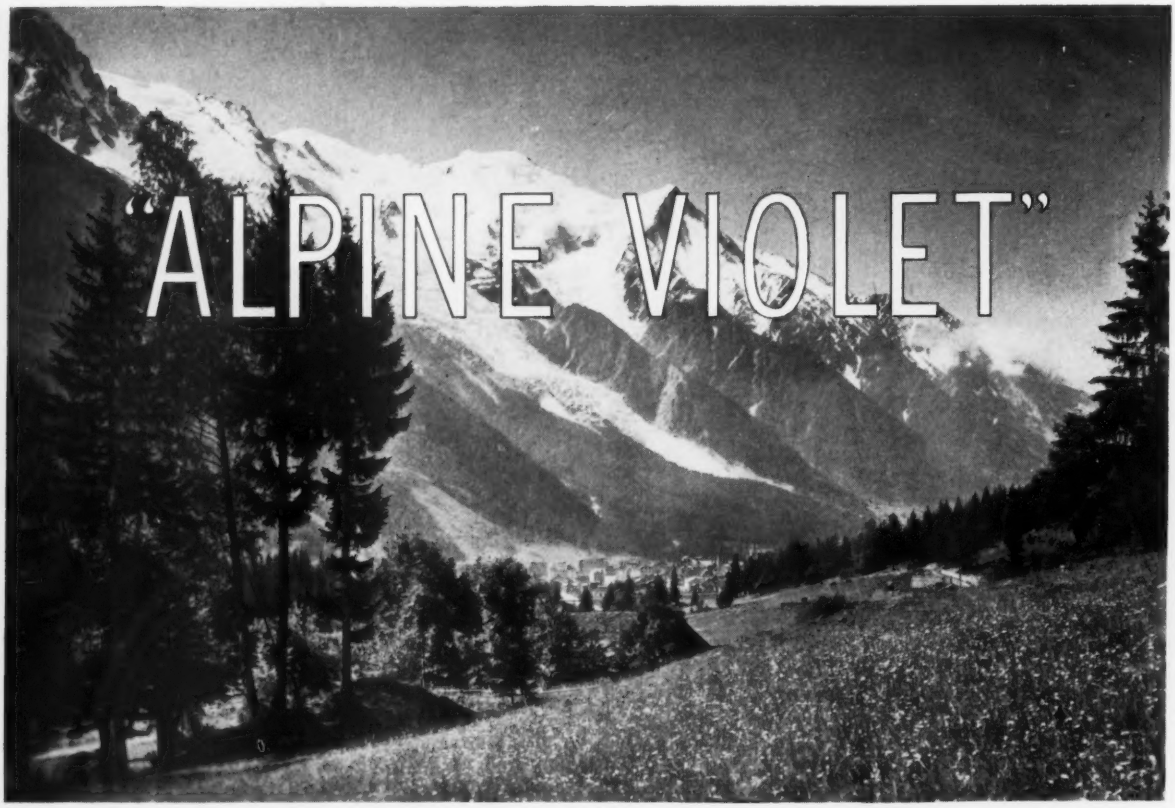
135 FIFTH AVE., NEW YORK

"BUY"-PRODUCTS of SERVICE



du Pont Presents

A NEW SYNTHETIC AROMATIC



"Alpine Violet" bears the true odor of the mountain cyclamen—is five times stronger than Hydroxycitronellal, yet is very stable, highly resistant to alkali and does not irritate the skin.

"Alpine Violet" lifts, adds mellowness to bouquets—blends with every synthetic and essential oil and does not discolor soaps.

"Alpine Violet" is the ideal floral adjuvant for distinctive soaps, yet it is priced for large scale production.

Samples and additional information will be sent on request.

E. I. DU PONT DE NEMOURS & CO., INC.
ORGANIC CHEMICALS DEPARTMENT
FINE CHEMICALS DIVISION
WILMINGTON, DELAWARE

DU PONT
REG. U.S. PAT. OFF.

Aromatics

SOAP

Volume XIII
Number 3

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March, 1937

MEMBER AUDIT BUREAU OF CIRCULATIONS

SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 79. Production Section begins on page 65.

Published monthly by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK, N. Y.

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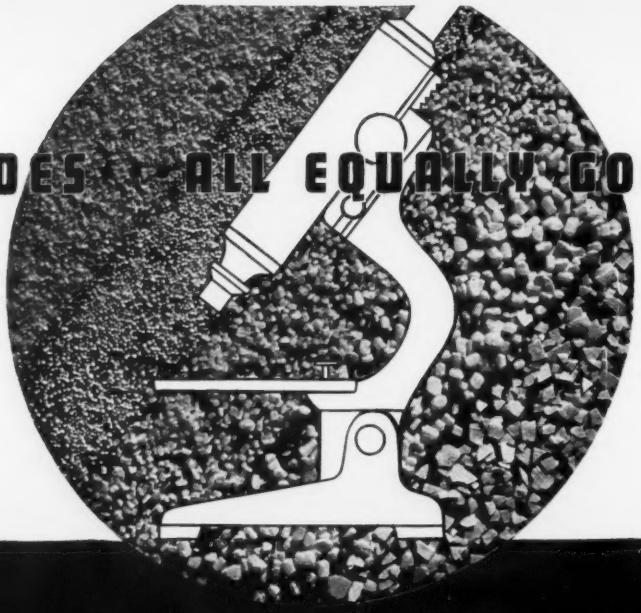
G R A S S E L L I · T · S · P

FIVE GRADES · · · ALL EQUALLY GOOD



GRASSELLI TRI SODIUM PHOSPHATE

FREEDOM FROM DUST · · · MAXIMUM NON-CAKING QUALITY · · · A GREAT CLEANER

• A mild alkaline salt, furnished in five grades (fines, medium, coarse, globular and flake), preferred by so many manufacturers for all general cleaning purposes.

A process that permits Grasselli Tri-Sodium Phosphate to cure makes possible maximum non-caking quality (hence, it is free flowing). It is almost instantly soluble in water. It is packed in non-sifting packages—barrels with paper liners, also fibre kegs and bags. It is stocked at our many branches and warehouses (hence, quicker delivery and economy of freight rates for you).

That's why GRASSELLI Tri-Sodium Phosphate has won the reputation as GOOD T. S. P. It will pay you to let us figure on your next requirements.

E. I. DU PONT DE NEMOURS & COMPANY, INC.

DU PONT — **GRASSELLI CHEMICALS DEPARTMENT** — GRASSELLI

Wilmington, Delaware

Albany, Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Milwaukee, New Haven, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis, St. Paul

San Francisco, 584 Mission St.
Los Angeles, 2260 E. 15th St.

Represented in Canada by CANADIAN INDUSTRIES, LTD., General Chemicals Division, Montreal and Toronto

COUNT ON COLOROMES*

*(Perfume and color combined)

to boost Naphthalene and Paradichlorbenzene Sales...and PROFITS!

Simple to use, economically and lastingly effective, COLOROMES impart fragrance and color . . . *in one easy operation.*

Para and Naphthalene products are made doubly attractive. Sales come more readily because your products smell and look better. It will pay you to try COLOROMES without delay.

Available in a large variety of odors and colors, or, odors without color, if desired . . . and priced for economy.

FELTON
CHEMICAL COMPANY, INC.

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER and FLAVOR OILS

603 JOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass. 80 Boylston St. | Philadelphia, Pa. 200 So. 12th St. | Sandusky, Ohio 1408 W. Market St. | Chicago, Ill. 1200 N. Ashland Ave. | St. Louis, Mo. 245 Union Blvd. | New Orleans, La. Balter Bldg. | Los Angeles, Calif. 515 S. Fairfax Ave. | San Francisco 512 Washington St.

Stocks carried in principal cities

ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES
For the Soap and Insecticide Industries

We offer a complete range of perfume materials for the

SOAP and ALLIED INDUSTRIES

ESSENTIAL OILS

of our own distillation

Clove — **Guaiacwood**
Nutmeg — **Safrol**
Sandalwood — **Patchouly**
Sassafras Artificial

AROMATIC CHEMICALS

manufactured by ourselves or under our control

Aubepine — **Ionones**
Linalyl Acetate — **Methyl Ionones**
Terpineol — **Heliotropine**
Methyl Cinnamate — **Coumarin**

"D & O" PERFUME BASES

a variety of odors for toilet soaps of which we call special attention to

Heather 7786 . . . . $4.00 per lb.
(a strong, lasting perfume of popular type)

Lavender 4260 . . . $3.50 per lb.
(a clean, refreshing odor)

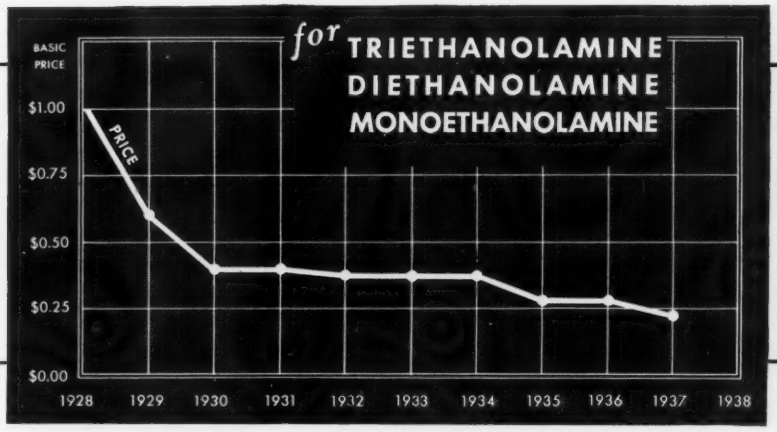
For Insecticides

Our **PETRODORS**, non-staining odors which effectively mask petroleum derivatives, at prices from 50c to $2.00 per lb.

DODGE & OLCOTT COMPANY

180 Varick Street — New York, N. Y.
BRANCHES: *Philadelphia—Boston—Chicago—St. Louis—Los Angeles*

Again . . Lower Prices



Shampoos, Liquid Soaps, Floor Waxes, Polishes, Textile Specialties, and Insecticides can now be profitably improved through the use of these products.

SUBSTANTIALLY lower prices for these three compounds are now in effect... new cost calculations and additional experimentation are in order. New and improved products which have been shelved awaiting lower ethanolamine prices should now be reconsidered.

With lower prices, the use of one of the ethanolamines becomes more economical than ever in production of emulsions, soaps, cosmetics, polishes, textile specialties, leather compounds, insecticides, cutting oils, water paints, shellac and casein dispersions.

Chemically, the ethanolamines behave like alcohols or amines. Triethanolamine in particular enters into many reactions characteristic of polyhydric alcohols. All of the ethanolamines, being extremely hygroscopic liquids, are excellent moistening agents.

A wide range of products can be made with these amines. The booklet on "Emulsions" contains 57 proved formulae using Triethanolamine. This book, together with the new low prices, will be gladly forwarded upon request.

CARBIDE AND CARBON CHEMICALS CORPORATION

Unit of Union Carbide and Carbon Corporation

UCC

30 East 42nd Street, New York, N. Y.

PRODUCERS OF SYNTHETIC ORGANIC CHEMICALS

Anchor Caps

The most complete line of closures in the world is something more than a boast. It is your assurance that in the Anchor line you will find exactly the right closure for your particular purpose . . . right in sealing and production efficiency . . . right in appearance and convenience . . . and right in price. Many of the Anchor closures have proved their worth for over a quarter of a century. Some are more recent introductions to the Anchor line . . . answering the constantly expanding packaging demands of modern industry. But no closure may bear the name Anchor until it has passed the most rigid tests under actual production conditions. If you haven't recently seen the entire Anchor line, may we suggest that you ask to have an Anchor representative call on you. He may be able to show you how you may do a better or more economical sealing job. ANCHOR CAP & CLOSURE CORPORATION, Long Island City, New York; Toronto, Canada. Branch offices in all principal cities.

Capstan Glass

The virtues of glass, most modern and sales-appealing of all packaging materials, are proudly exemplified in Capstan's complete and attractive line of containers . . . a size and shape and design for every type of glass-packed product, for every sort of merchandising appeal or package appearance. Here at Capstan, craftsmanship, fine materials, the latest types of glassmaking machinery, together with a long-standing tradition for quality . . . all combine to produce the finest of commercial glass containers, dependable in quality, accurate in capacity and finish, sparklingly clear in color. Our modern plants—equipped throughout with electric annealing lehrs for insuring uniform and sturdy containers—plus the forward-looking Capstan organization makes Capstan a happy choice as your source for glass containers. CAPSTAN GLASS COMPANY, Connellsville, Pa. *Associate Company:* SALEM GLASS WORKS. Branch offices in all principal cities.

The Blank Soap Company Doesn't Care a Hoot About The Zooming Price of OIL CITRONELLA

THE Blank Soap Company should be concerned with the jump in Oil Citronella prices from 18c to *46c—but it isn't!

Fact is, they don't care a hoot about booming Citronella prices because they've found a way to beat the price rise, not temporarily but permanently.

Like many other former users of Oil Citronella, the Blank Soap Company has discovered that the use of Citronella substitutes, Andro M M & R (Ceylon) and Jerale M M & R (Java), according to specified instructions by M M & R Chemists is the ideal way to get around Citronella price fluctuations without sacrificing product quality.

Tests of Andro and Jerale samples will prove to you as they did to the Blank Soap Company that these two efficient, uniform, highly dependable substitutes are equal in pungency to the best Citronella Oil. Examination will show that Andro (Ceylon type) and Jerale (Java type) offer several distinct advantages over Oil Citronella when used as suggested.

Write today for testing samples of Andro and Jerale. A knowledge of your requirements will enable our chemists to offer suggestions for the most profitable use of these two M M & R specialties.

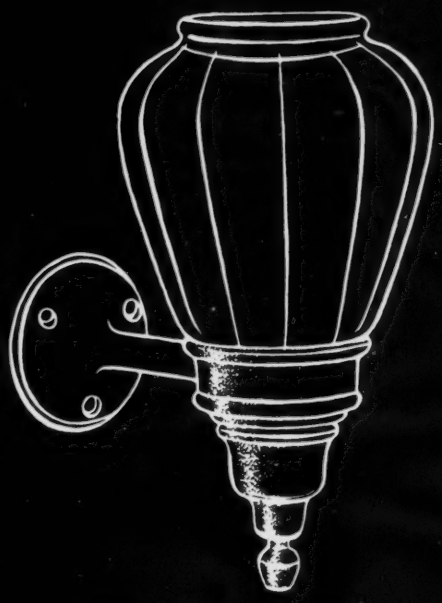
*46c was quoted for Oil Citronella the day this ad was written.

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OIL . BALSAMS AROMATIC CHEMICALS, ETC...SINCE 1895

32 CLIFF STREET NEW YORK, N. Y.

GRAVITY



DUODEK

One of the 23 Clifton modernized models. Folder is yours for the asking.

never FAILS!

NEITHER DOES THE DUODEK

●

That is the reason why the DUODEK has been the choice of the "Who's Who" in the liquid soap business for the past twenty years.

●

The never-fail gravity valve has no springs or intricate mechanisms to get clogged or out of order.

●

Replaceable glass globe easily cleaned inside. Extra heavy.

●

Releases an adequate amount of soap without fussing with the plunger.

●

User gets a good washing quickly.

●

Jobber sells more soap.

●

Everyone satisfied.

●

Also made with goose neck bracket.

●

Hundreds of thousands in use giving year-in-year-out satisfaction.

●

LOW PRICE is merely one of the virtues of the DUODEK.

●

(Available with the spring valve if desired).

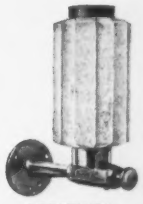
MODERNE

TRICONIC

GRAVITY TANK

PULLMAN

TILTYPE



SOPURNIA

MICROME VALVE

Interested in these items under attractive imprint labels?

CONCENTRATED LIQUID SOAP
COCONUT OIL BASE
OLIVE OIL BASE
DISPENSERS
RUB-NO WAX

DEODORIZING CAKES
DEODORIZING BLOCKS
WALL CONTAINERS
METAL POLISH
MOPPING VARNISH

DISINFECTANTS
FURNITURE CREAM
INSECT KILLER
SPOT REMOVER
SHAMPOOS

CLIFTON CHEMICAL CO.

246 FRONT ST. NEW YORK

CAUSTIC SODA

Liquid . . . Solid . . . Flake

CAUSTIC POTASH

Liquid

CARBON TETRACHLORIDE

99.995%

"EARLIEST PRODUCTION IN THIS COUNTRY"

TRI-SODIUM PHOSPHATE
DI-SODIUM PHOSPHATE

ALSO MIXED DETERGENTS COMPOUNDED
TO MEET USERS' OWN SPECIFICATIONS

TETRA SODIUM PYRO PHOSPHATE

(Neutral Pyro)

AN OPPORTUNITY TO SUBMIT SAMPLES AND QUOTATIONS IS SOLICITED

WARNER CHEMICAL COMPANY

Pioneer Producers since 1886

STANDARD WARNER CHEMICALS

CHRYSLER BUILDING NEW YORK CITY
155 EAST SUPERIOR STREET, CHICAGO
70 RICKARD STREET, SAN FRANCISCO

DIVISION OF WESTVACO CHLORINE PRODUCTS

Yes--Soaps Need
VITAMIN F
BUT--

It is essential to use the Vitamin F on the basis of its TESTED and PROVED performance. Our Vitamin F has shown IN ACTUAL USE that it helps correct these symptoms of Vitamin F Deficiency:—dryness, roughness, thickening of skin . . . brittleness, roughness of nails . . . brittleness, thinning of hair, dandruff.

WHAT DO USERS OF VITAMIN F SOAPS REPORT?

Large introductory sales—
Gratifying reorders—

This is the response manufacturers everywhere get by using our biologically assayed Vitamin F concentrate—evidence that each day increasing numbers of the general public, as well as soap manufacturers and merchandisers, realize the importance of this vitamin in skin health and beauty.

It is most significant to every responsible soap manufacturer that our Vitamin F is prepared ONLY on the basis of biological assay, measured in UNITS. Our concentrate (50,000 units per gram) is far less costly, in terms of ACTUAL UNITS, than any natural source of Vitamin F. (Any natural source, including linseed oil, has been proved to vary greatly in Vitamin F content, frequently containing an almost negligible amount.) Sample ¼ gal. of Vitamin F concentrate (50,000 units per gram), certified and biologically assayed, is now available at $10, ready for use in soaps (cost per finished product is negligible). Send for quantity prices.

PHARMACEUTICAL SPECIALTIES CO.

A Division of

ARCHER - DANIELS - MIDLAND CO.

New York—Woolworth Bldg. 155 E. Ohio St.—Chicago

(Pioneers in the industrial production of the original cold-pressed, stabilized and biologically assayed wheat germ oil—VITAMIN E)

To PHARMACEUTICAL SPECIALTIES CO.,
Woolworth Bldg., N. Y. C., Dept. S4.

Check is attached for ¼-gallon of biologically assayed VITAMIN F (50,000 units per gram) at $10. (Send quantity prices.)

Also, send Mary Imogene Shepherd's new brochure, titled "Survey of VITAMIN F in Cosmetics."

Name .....

Firm .....

Address .....

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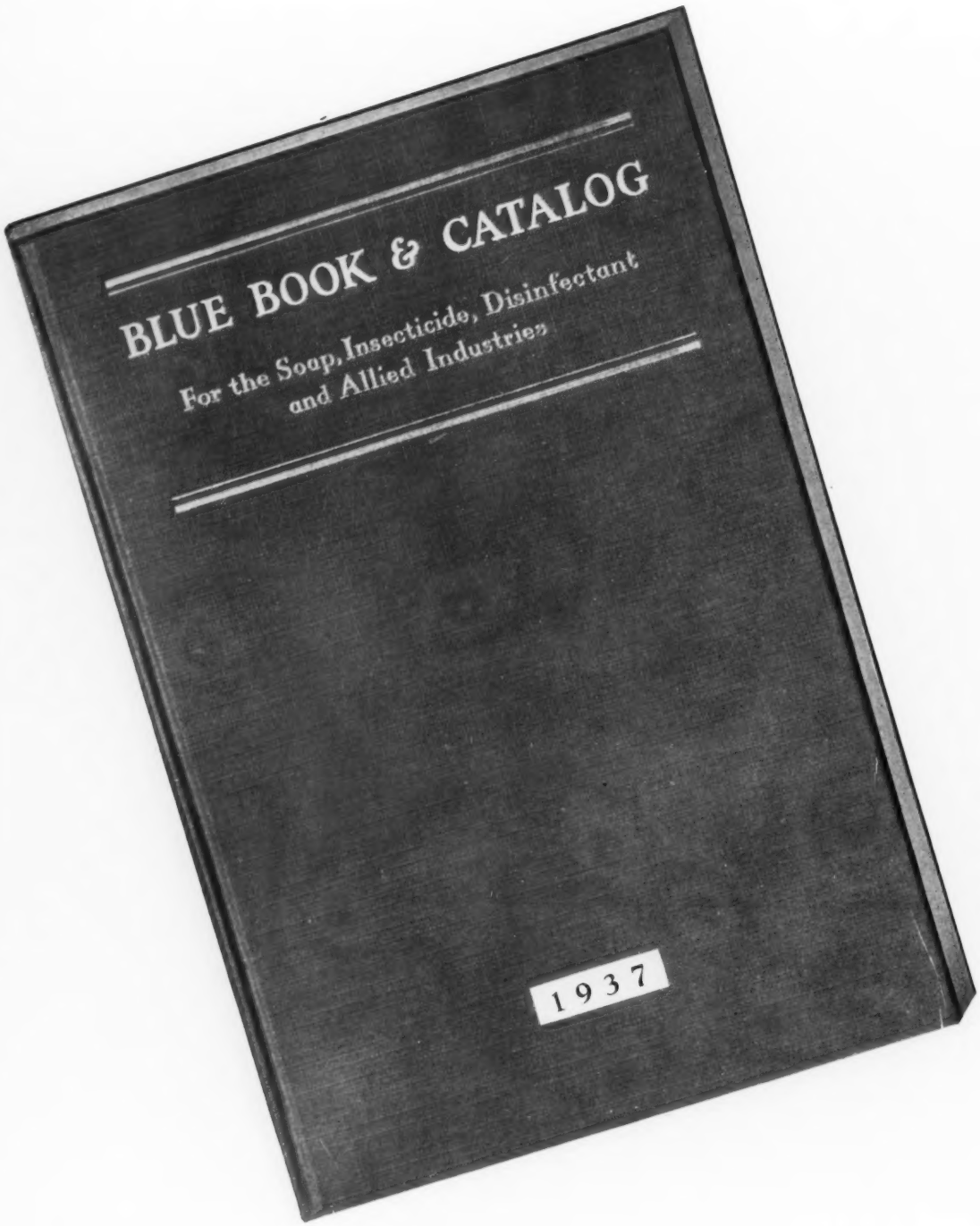

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Contents of The New

1937 SOAP BLUE BOOK

This section has again been materially expanded, reflecting subscribers' expressions of approval. Contents of the 1937 edition include: reference articles on the following subjects: Soap Market Survey; Water Hardness Statistics; Advice on Labeling Fly Sprays; How a Department Store Tests Toilet Soap; Analysis and Comparison of Furniture Polishes; The Revised Peet-Grady Test for Insecticides (published complete only in the Blue Book); F.D.A. Disinfectant Test; How to Buy Sanitary Specialties (a valuable guide for sanitary supply houses); U. S. Specifications for soaps, polishes, cleansers, chemicals, etc.; New Oil and Fat Tariff and Excise Rates; an index to SOAP for the years 1934-35 and 36 (makes it easy to locate valuable technical information); Technical Charts and Tables; Shipping Terms Explained; Data on Social Security Act (needed by every labor employer). All of this information can be used throughout the year.

Reference Section

The Buyer's Guide contains a list of everything readers of SOAP buy—raw materials of all kinds, machinery, packaging materials and bulk soaps, sanitary products and sanitary accessories—with a complete record of all of the known manufacturers of each item. This is distinctly not an ordinary buyer's guide, cluttered up with names of dealers, branch offices, etc., and with advertisers indiscriminately listed.

Buyer's Guide

Leading companies selling raw materials, equipment, bulk products, packaging materials, etc., have filed their condensed catalogs in this section. Catalog section advertisers are listed throughout the Buyer's Guide in black face type. With each listing their advertising page numbers are given.

Catalog Section

FREE

The SOAP BLUE BOOK costs SOAP subscribers nothing. Free copies have already been mailed to our entire list. A limited number of additional copies are available. If you want one your check for $3.00 (Foreign, $4.00) will cover a subscription to SOAP for one year and will insure your receiving a BLUE BOOK by return mail.

MacNair-Dorland Co., Inc. 254 West 31st St., New York

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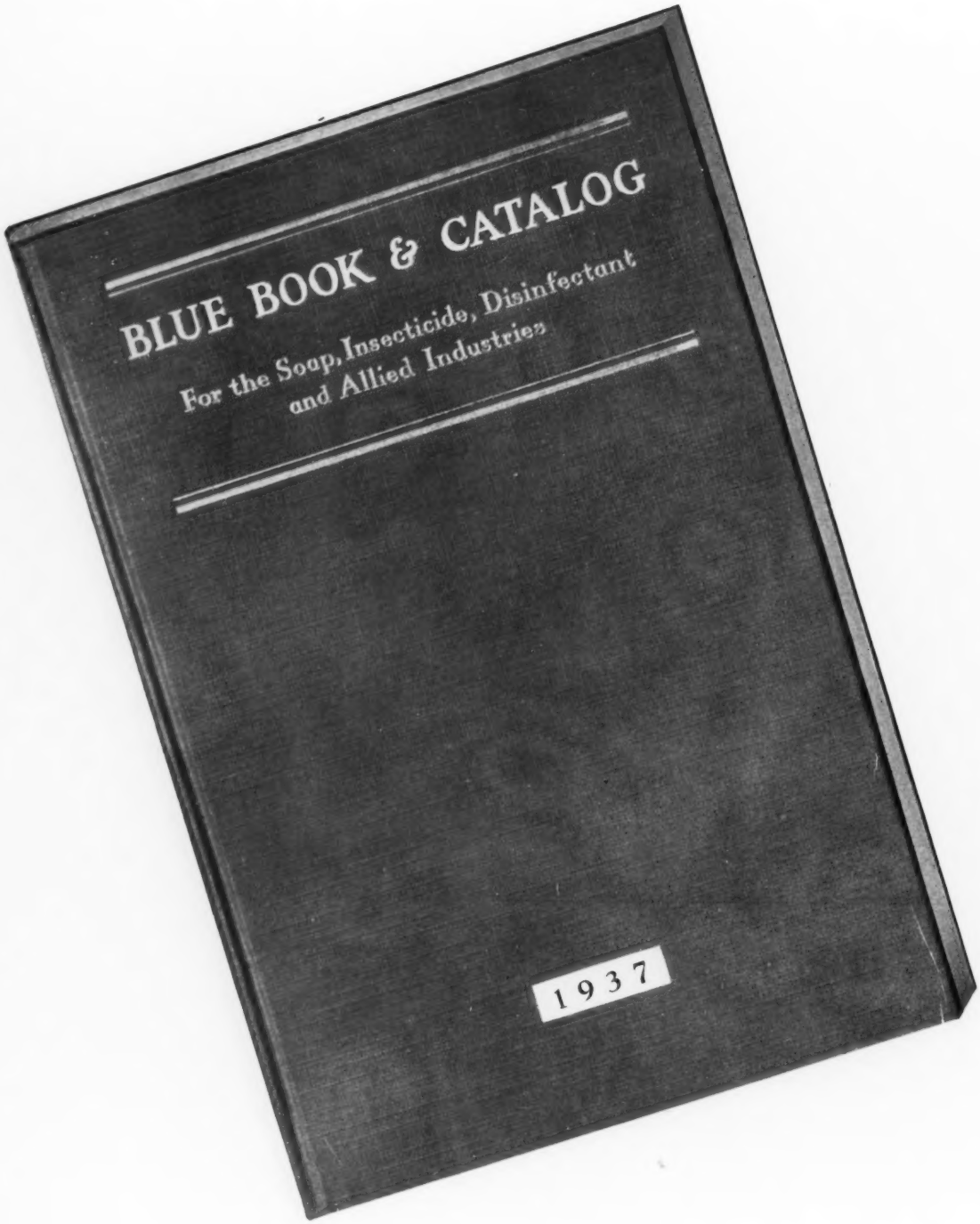

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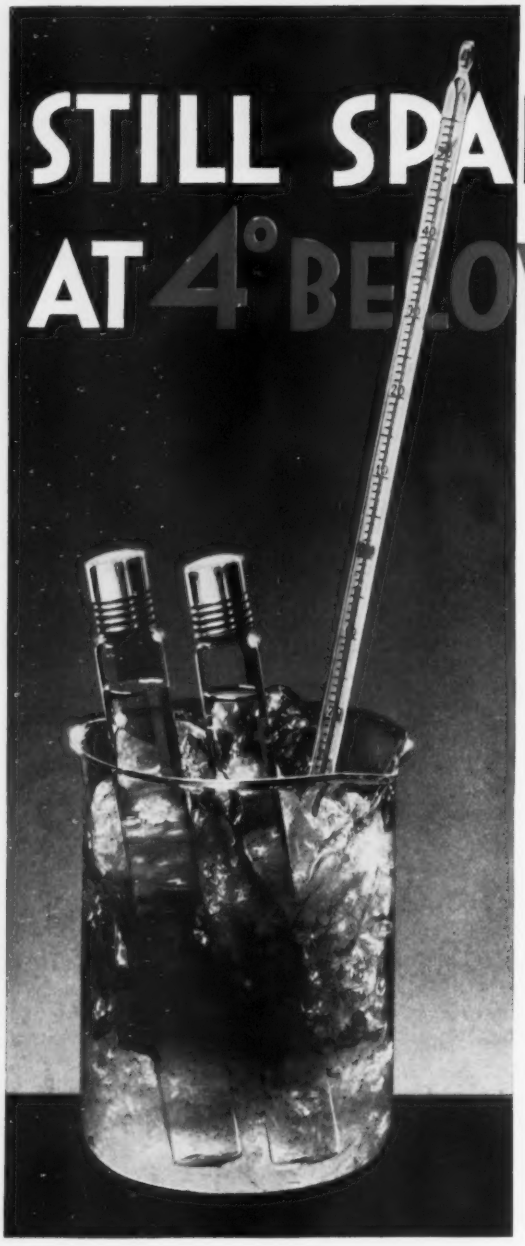
MacNair-Dorland Co., Inc. 254 West 31st St., New York



STILL SPARKLING CLEAR AT 4° BELOW ZERO C.!

TRY this test on the liquid soap you are now buying -- particularly the concentrated (40%) which you are using as a base to produce liquids of lower soap content.

"BUCKEYE" and "GEM" concentrate liquid soaps remain absolutely clear at temperatures below zero C., lending themselves perfectly for use at all temperatures as a base in producing liquids of lower soap content.

Just dilute them with distilled water --- no need whatever for any filtering.

Send for samples and prices. No obligation.

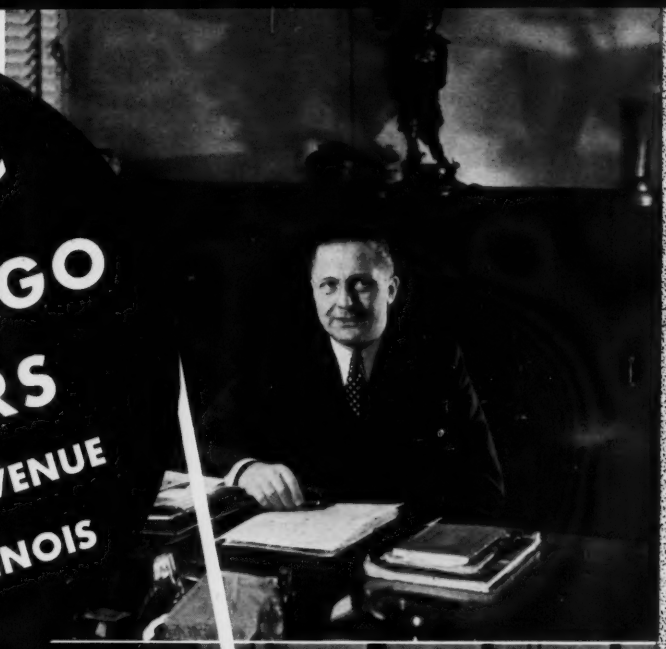
THE DAVIES-YOUNG SOAP CO.
Dayton, Ohio

"BUCKEYE" CONCENTRATE and "GEM" CONCENTRATE Liquid Soaps

Copyright 1933
By The Davies-Young Soap Co.

Verley's NEW CHICAGO QUARTERS

1621 CARROLL AVENUE
CHICAGO, ILLINOIS



D. A. BENNET
President and Treasurer

E. J. STROBL
Vice President and Secretary

. . . now adequately equipped to handle our increased business in all departments.

ALBERT VERLEY
aromatics

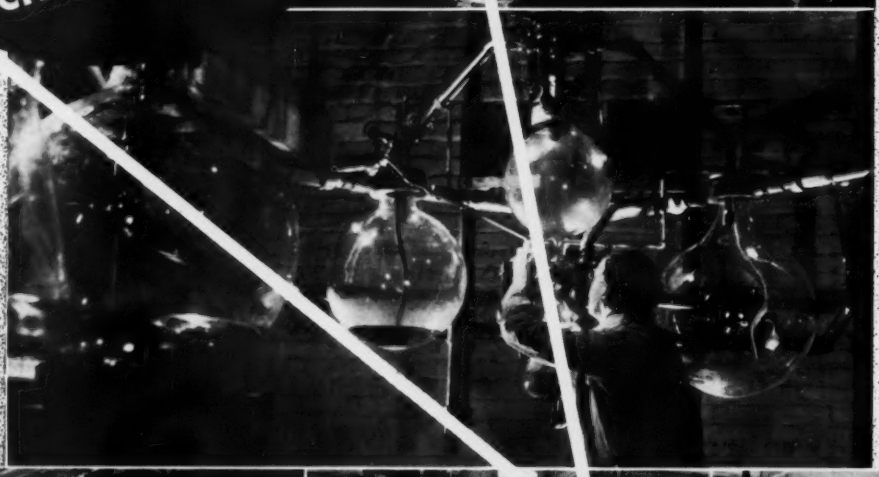
ALBERT VERLEY, INC., 1621 Carroll Avenue, Chicago, Illinois
114 E. 25th Street, New York
Mefford Chemical Co., Los Angeles

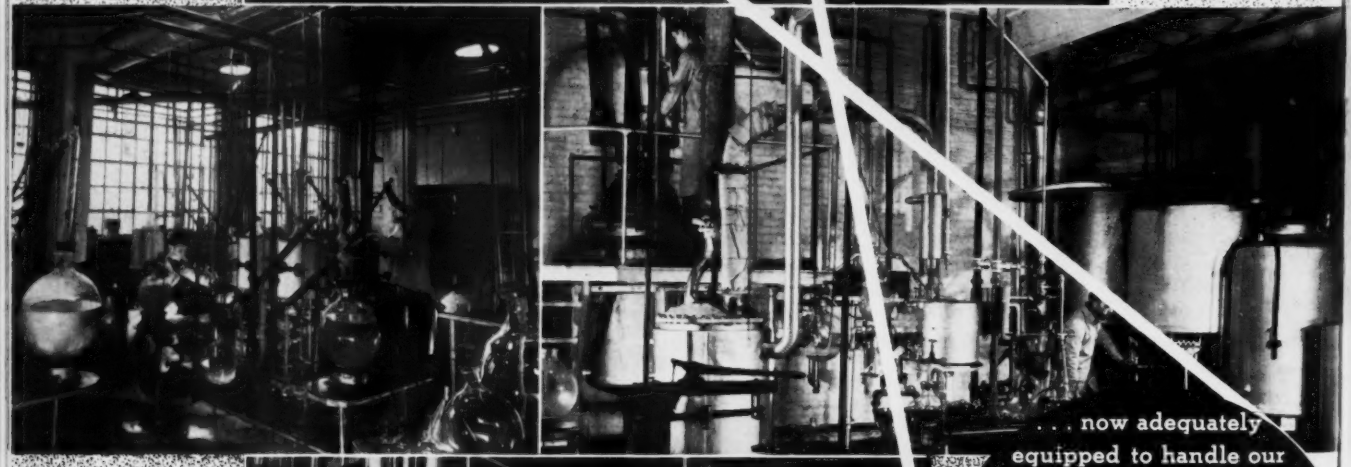
Verley's

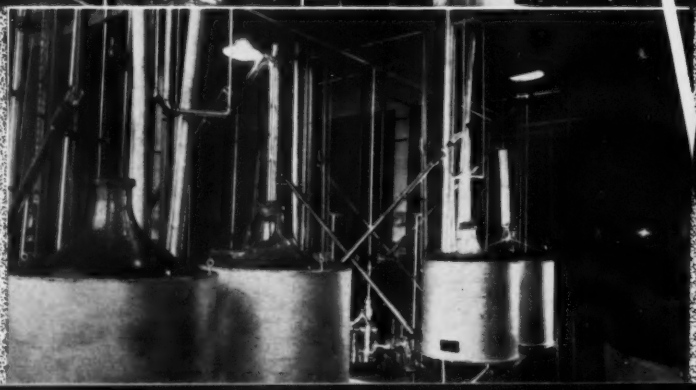
NEW CHICAGO QUARTERS

1621 CARROLL AVENUE

CHICAGO, ILLINOIS







. . . now adequately equipped to handle our increased business in all departments.

ALBERT VERLEY

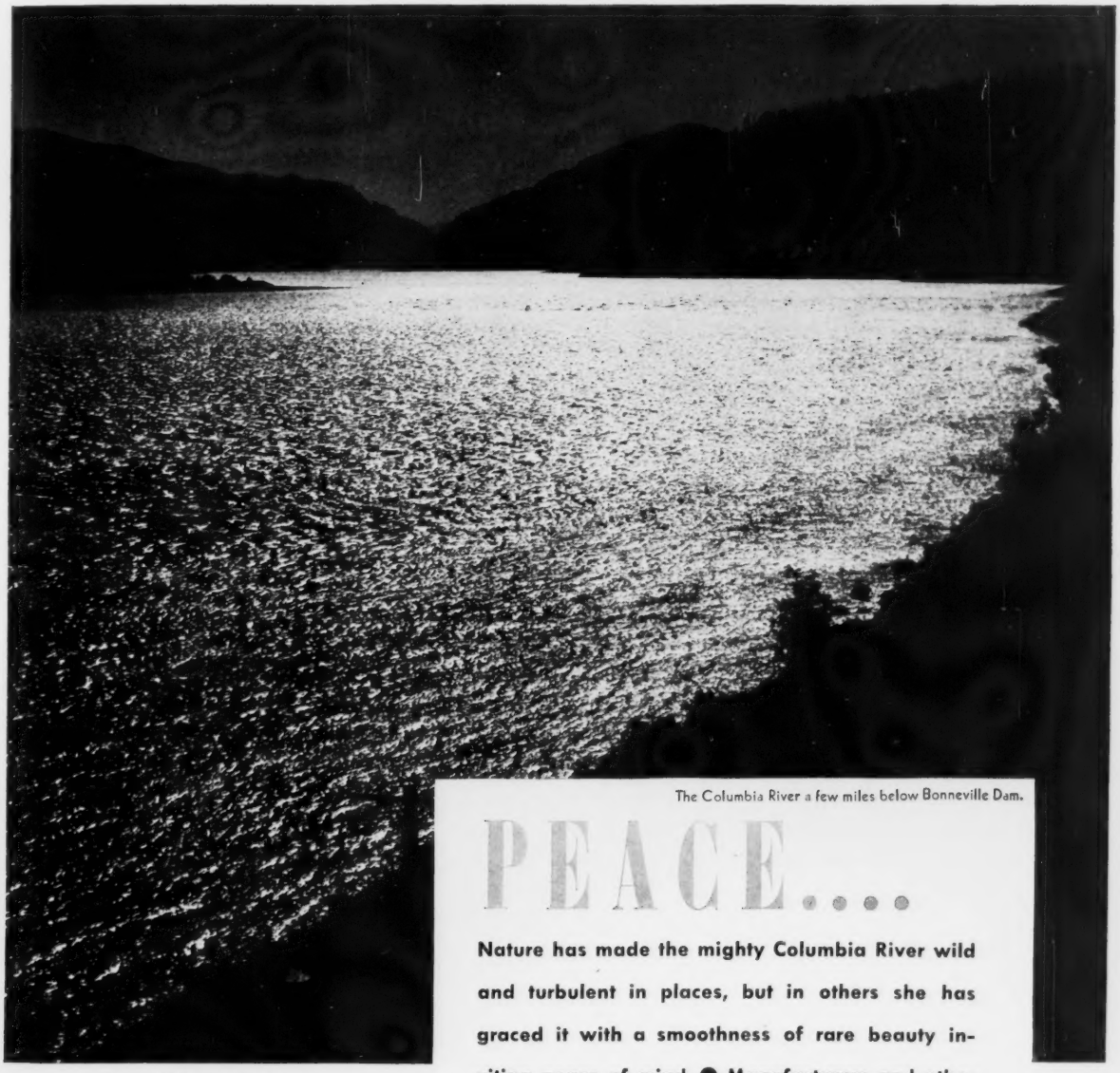
aromatics

ALBERT VERLEY, INC., 1621 Carroll Avenue, Chicago, Illinois

114 E. 25th Street, New York

Mefford Chemical Co., Los Angeles

COLUMBIA



The Columbia River a few miles below Bonneville Dam.

PEACE....

Nature has made the mighty Columbia River wild and turbulent in places, but in others she has graced it with a smoothness of rare beauty inviting peace of mind. ● Manufacturers and other users of the products of THE COLUMBIA ALKALI CORPORATION also find an enviable peace of mind in the quality, uniformity and service that is a part of COLUMBIA.

COLUMBIA

SODA ASH
CAUSTIC SODA
SODIUM BICARBONATE
MODIFIED SODAS
CALCIUM CHLORIDE
LIQUID CHLORINE

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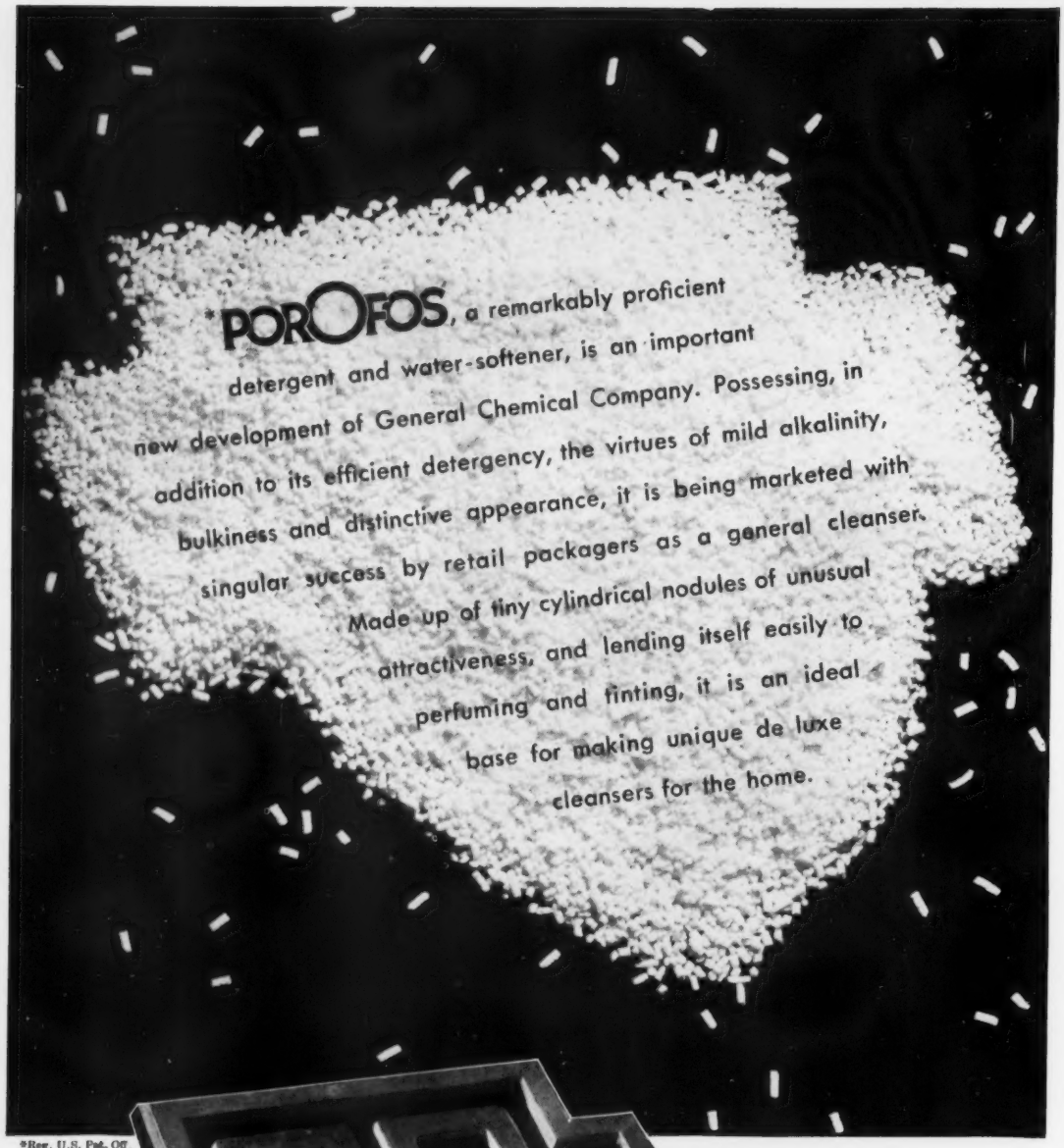
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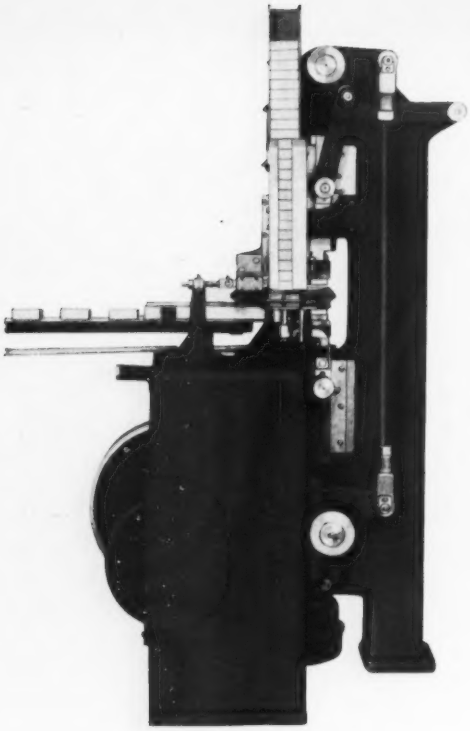
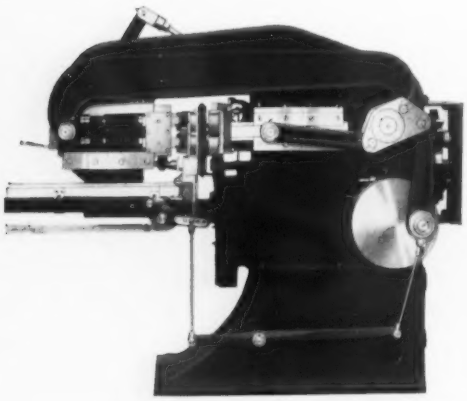


Type ET Toilet Soap Press

Brine and other lubricants discolor soap cakes. On most soaps, Jones Toggle Presses require no pressing lubricant. Result: *No discoloration of cakes.*



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JONES new toggle operated presses more than *treble* the productive life of dies.

For DIE ECONOMY
BETTER LOOKING
MORE SALABLE SOAPS

replace your old presses with

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The Standardized *Constant Motion Cartoner* packages bottles, jars, tins, collapsible tubes and many other articles. It feeds, folds, and inserts direction sheets and corrugated board liners with the loads

As the editor sees it....

IN 1936, the United States produced more glycerine than ever before in its history,—154,000,00 pounds calculated as 80 per cent crude. And the rapid pace of glycerine production continues this year, but is still unable to satisfy the demands of the country. The price is higher again this month and soap lye is now flirting with thirty cents. Of course, anybody who has studied the glycerine market over the past decade or two, knows that this price is too high for the good of the producer as well as for the consumer. Buyers do not like it and frankly say so,—but what can they do about it? They would certainly switch to something else if they could. But to what?

For the soaper, it is great while it lasts, something like the feeling as you reach for the fourth cocktail. It compensates to some extent for shortcomings in soap prices. We hope that it does not end too soon, or too suddenly, and for the future good of the glycerine industry, we fear that it will not. At thirty cents per pound, glycerine is issuing an engraved invitation to somebody somewhere to make the most of their synthetic glycerine process or glycerine substitute.

ADVICES indicate that the constitutionality of the coconut oil excise tax law may be argued before the United States Supreme Court early this month. That the law may be declared unconstitutional is altogether a possibility, but if we may judge by the views of certain prominent attorneys expressed at the time the law was passed, this is not a probability. At that time, we asked several lawyers who were familiar with the law, what they thought of the chances of the Supreme Court invalidating it. From the angle of the soap industry, their opinions were none too promising.

And if perchance, the Supreme Court were to declare the coconut oil tax unconstitutional, we hazard a guess that it would not be many moons before the tax were with us again in a new and constitutional form. The dairy, rendering and other domestic fat producers have enjoyed too much the benefits of the coconut oil tax to permit it to be thrown into the discard at this late date. And if we need any evidence that the "dairy" interests have the power in Congress to do about as they please, let us recall the celerity and completeness with which the list of taxable oils and fats was expanded in the Revenue Act of 1936.

No, Mr. Soaper, we fear that any relief from this tax is just not in the cards at the present time, irrespective of what the Supreme Court may do.

QUITE a few manufacturers up and down the Ohio River Valley are outspoken in their resentment against exaggerated reports of the effects of the recent flood. It seems that most of them were not as badly crippled by the flood as was generally believed. However, many of their customers switched orders elsewhere in the mistaken belief that plants in the flood areas would not be able to supply the goods or make shipment. As a matter of fact, most of the plants were cleaned up and ready to do business well before the middle of February,—but orders were conspicuous by their absence.

And, furthermore, so thoroughly convinced were the people of the nation at large of the complete devastation of the Ohio valley, that they literally buried the flooded areas under an avalanche of food and other necessities until

those in authority cried for help against their benefactors. All of which goes to show that Americans on the whole mean well, but usually overdo things,—even to reports of the flood damage. So, let it be said for the manufacturers of the Ohio and Mississippi valleys that they are now all ready to do business as usual,—and have been ready for some time.

OVER the next year, the Federal Trade Commission is anticipating making about one citation a week against violators of the Robinson-Patman Act,—at least so state reports from Washington. At the same time, the Great Atlantic & Pacific Tea Company files an answer to the complaint against it under the same law, holding that the act is unconstitutional. The arguments presented by the large grocery chain appear very convincing, and as far as we are competent to judge, present the real reasons why the law *is* unconstitutional. Of course, this is another case which must go through to the Supreme Court for eventual decision. With the present tangled and uncertain state of the legislative-judicial situation in Washington, searching for the answer is akin to finding a black cat in the jungle at midnight.

SEVERAL months ago, we pointed out that the Robinson-Patman Act, might tend to build up self-contained manufacturing-merchandising chain store groups to get around certain objectionable features of the law. Now, Mr. Patman plans to make any such arrangement illegal by a law which would forbid any manufacturer selling in interstate commerce direct to a consumer, or through a retail outlet which said manufacturer might own in whole or in part. But, on top of this, we hear of an association of retail drug stores which is planning to manufacture a line of drug products for its members. The reason, however, is not to circumvent the Robinson-Patman Act, or Mr. Patman's new brain-child, but grows out of a dissatisfaction on the part of certain retailers with the profit which they make on nationally advertised goods. The retailers point out that the profit on private-brand goods is just about twice what it is on nationally advertised items. The association evidently plans, therefore, to retain for its members the manufacturing profit as well as the retail sales profit. Here is another prospective headache for the manufacturer of nationally advertised products,—and also another chance for Mr. Patman to do something along legislative lines.

CONGRESS appears determined to sink its hooks into the soap industry in some manner, shape or form in the new Food and Drug Act,—the Copeland Bill. This bill containing references to soap which are distinctly unsatisfactory to the soap industry, has been reported favorably. After the long fight of last year, following which soaps were definitely not classed as cosmetics in the Copeland Bill, the 1937 version excepts only such soaps as are "intended for no cosmetic use other than cleansing." The danger of wording as vague as this in the hands of government law enforcement agencies, who experience teaches us are sometimes given to unique and unusual interpretations of the law, is obvious.

Says the Association of American Soap & Glycerine Producers: "When a group of women were asked 'What products do you consider are cosmetics?'—99 per cent included powder, 83 per cent included rouge, 71 per cent included lipstick, 58 per cent included creams, and so on down through lotions, toilet waters, etc.,—but not one of them included soap. . . . Soap is not, and never has been, a cosmetic. It is wrong to treat it as such in federal or state legislation."

Plain ordinary horse-sense indicates that in the definition of cosmetic in the Copeland Bill, the words "except soap" should appear. There is no necessity for anything else but this simple exception, no need to become vague, complicated and involved. The public interest would be served fully by this straightforward and simple solution of the problem. No need whatever exists to include soaps in the bill. If you have not done so already, write or wire your senators now, and tell them this in plain, blunt words. But don't tell him that the present wording of the bill as far as soaps are concerned.—and after the wording which was definitely agreed upon last year,—arouses the suspicion that somebody somewhere in Washington seems bent upon double-crossing the soap industry.

Specialty Toilet Soaps

By Joseph M. Vallance
Warrington, England

THE average soapmaker has never depended as much upon novelties as has, for example, the cosmetic or perfume manufacturer. Milled toilet soaps and soap chips were, when first marketed, outstanding innovations, but for the most part the old familiar products are still with us in comparatively unchanged form. The manufacture of ordinary toilet soaps, as well as the laundry products, is today a matter of large tonnage production. There seems to be little time or place for novelties or specialties. However, certain toilet soaps of a distinctly specialized character have recently achieved a fair degree of popularity in a minor way in the United Kingdom. While it does not necessarily follow that such soaps in all cases would find equal potentialities in America, there seems to be no reason why some of them might not find an appeal to the public in one country as in the other.

As far as soap is concerned, the movement of fashion in the United Kingdom has been slow. It is only during the past few years that the vogue for mottled and transparent soaps, for instance, has declined. More recently, the colored soaps, after a severe setback, have very slowly begun to come into their own again. The discussion here, however, concerns itself with certain soap specialties which are not new in some cases, while in others they are new to the British market. These include (a) popular germicidal soaps, such as iodine, mercury, tea-tree oil, tar, and sulfur soaps; (b) mineral salt soaps, containing active mineral salts of natural origin; and (c) special cosmetic soaps, such as milk, turtle oil, avocado oil, etc.; (d) solvent toilet soaps for greasy, ink and paint stained hands; (e) filled toilet soaps of a special nature.

While a number of these products live up to the claims made for them, it cannot be denied that others have merely been given high-sounding names as convenient pegs on which to hang suitable advertising

stories. Exactly how far this latter method fits into the picture in the United States is impossible to say, but it is a fact that extravagant claims in the United Kingdom have recently suffered a severe and unexpected reverse at the hands of the Lord Chief Justice, who has ruled that magistrates are empowered under the Merchandise Marks Act to fix a standard for lysol soaps and (apparently) any other type of soap. Exactly how far this new ruling will be carried into effect still remains to be seen.

Where a soap for use on the human body makes special claims over and above those of ordinary cleansing value, it is usually purchased for one of two reasons,—first, for the treatment of skin diseases, either at the behest of a physician, or for home medication, or, second, for such cosmetic value as it may have or may claim. No sharp line seems to be drawn between the uses of germicidal soaps, for example, whether for skin treatment, disease prevention, or for general toilet use because of preference by the purchaser. At the same time, the constant use of soaps containing mercury, sulfur, and other medicaments, where their use is not indicated by some disease of the skin, is likely to be dangerous according to some medical opinion. Therefore, it seems that a distinct line of demarcation should be drawn by the manufacturer in recommending his soap specialties between those products of a cosmetic nature, and those of a strictly medicinal character.

A good steady market exists for medicated soaps that claim to be effective as germicides and antiseptics. Such claims have always been open to dispute, even in the case of carbolic soaps with a relatively high phenol content. The demand for such soaps is undoubtedly encouraged by patent medicine advertising in general, as is evinced by the astonishing popularity at the present time of the so-called "iodine" soaps. All kinds of extravagant claims have been made for these products, although it is exceedingly doubtful whether iodine soap has any greater germicidal activity than ordinary unmedicated soap.

Analyses undertaken by the author go to show that there is a noticeable absence of free iodine in most, if not all, of the various iodine soaps to be found on the market. The percentage varies from approximately 0.3 per cent down to 0.01 per cent. In this connection, it is worth noting that W. H. Simmons

recommends the incorporation of about 3 per cent iodine in such soaps, the iodine being previously dissolved in a solution of potassium iodide. Even this presents several problems, owing to the volatility and instability of the iodine content. Various suggestions have been made in this connection, but I still feel that the usual method recorded by Simmons is probably the best.

In any case, whatever the final proportion of iodine contained in the soap, the characteristic odor of iodine is successfully suggested by the judicious use of cresylic acid supplemented with a trace of iodoform. The wrappers of such soaps are also frequently perfumed to suggest the iodine odor. Another difficulty with iodine is that it tends to have a yellowing action on soaps containing it and the latter therefore should be colored a yellowish-brown. This color is also probably best for psychological reasons as well.

Sulfur soaps seem to be coming to the fore again after a fairly long lapse from popularity, due, no doubt, to their combined unpleasantness and ineffectuality. This revival of interest follows some important research carried out recently in England and Germany on the use of diphenylene bisulfide in germicidal soaps and corrective cosmetics.

Investigations carried out by such men as Brisson and York-Schwartz had previously indicated that the action of sulfur remedies is dependent on, and in direct proportion to, the amount of oxidation products of sulfur formed, but owing to the insolubility of sulfur in the great majority of convenient solvents, soaps incorporating useful proportions of it have up to the present been unsatisfactory and irritant in use. A well-known British authority has recently carried out several tests with diphenylene bisulfide, which is produced in Germany and is known as Mitigal. This product is a non-irritant liquid containing 25 per cent of active sulfur and has been incorporated in the proportion of 6.5 per cent in soap, being introduced prior to milling by mixing it with about half its weight of a suitable superfatting substance.

Accordingly to these practical tests, a toilet soap made with a sufficiency of diphenylene bisulfide has great possibilities dermatologically. This particular type of sulfur soap deserves the close attention of specialty soap manufacturers who are anxious to produce a soap of real dermatological merit.

Birch tar oil has been fairly persistently advocated for use in medicated soaps, frequently in association with some form of sulfur. Such soaps have been recommended by the medical profession for use in the treatment of skin diseases, seborrhoea and dandruff. It is possible to make a considerably improved tar-sulfur soap by employing diphenylene bisulfide in the proportion suggested above and milling intimately into the soap not more than 5 per cent of birch tar oil. The oil in question has a pleasantly pungent odor of what may conveniently be described as an "antiseptic" type.

Another improved and reported active ingredient for use in germicidal toilet soaps is ti-tree oil, the essential oil distilled from the leaves of *Melaleuca Alternifolia*. This oil has a pleasant, sharp, somewhat pine-like odor, combined with high germicidal potency and the added merit of being completely non-toxic. The R. W. co-efficient works out at between 11 and 13 compared with phenol. Ti-tree oil soaps have already been made on a considerable scale in Australia, and it seems likely that their popularity may spread to other countries. As a safe and markedly effective antiseptic, ti-tree oil appears to be of proven merit and has been successfully incorporated by the author in dandruff lotions, ointments, mouth washes and high-class antiseptic toilet soaps. It is also suggested as a suitable base for household disinfectants and liquid floor cleansers, and in this respect its pleasantly sharp odor is an additional recommendation. When incorporated in soaps, it can be added either in the crutcher or mixed intimately with the soap base prior to milling.

ALTHOUGH the progressive tendency in the manufacture of germicidal soaps is definitely towards such harmless substances as ti-tree oil, there is still an established market for products incorporating mercuric salts. Mercury soaps are recommended in the United Kingdom by the medical profession for the treatment of various skin affections, and now that improvements have been made in the manufacture of such soaps, they seem likely to improve their present position on the market.

Mercury salts, as is well-known, tend to decompose the soaps in which they are incorporated. Undoubtedly the most popular salt in this connection is still the biniodide, but it is obviously useless to try to mill this into the soap as it stands. If this is done, the salt combines with fatty acids and is rendered useless as an antiseptic as well as causing marked discoloration in the soap. The best method of incorporating biniodide of mercury was devised by J. Thomson as far back as 1886, and consists of mixing approximately equal parts of mercuric biniodide and potassium iodide with a sufficiency of water and milling it into the soap in the usual manner. Not more than 0.5 per cent of each salt should be used, in spite of the fact that soaps are still sold containing higher percentages. The absorption of mercury by the skin should deter manufacturers from adding more than the proportion indicated.

Recently, however, patents have been accepted both in the United Kingdom and the United States, covering the addition to soap of aromatic mercury salts in which one bond of the mercury atom is directly linked with a nuclear carbon atom of an aromatic hydrocarbon and the other bond is connected to an acid radical, and the nuclear or side chain carbon atoms are not directly connected with any element other than carbon, hydrogen or mercury.

Among the various phenyl mercuric salts specified are the nitrate, lactate, ricinoleate, salicylate, etc., all of which are claimed to give non-toxic germicidal soaps. A later patent covers the use of similar compounds in which the acid radical, however, is in each case replaced by an organic radical containing an imido group or groups. Examples given are the mercury derivatives of hydrazobenzene, guanadine, pyrrole, indole, piperidine, etc. It is claimed that the addition of 0.1 per cent of such substance is sufficient to produce a good germicidal soap, and that up to 0.5 per cent gives a soap sufficiently germicidal for use in hospitals or by physicians. The mercury compound is best introduced into a small portion of the soap which, after thorough mixing, is incorporated in the whole batch, followed by milling, plodding and stamping. A really good class of toilet soaps exhibiting well-defined antiseptic properties may be made quite simply by incorporating suitable proportions of parahydroxybenzoic acid esters in a milled soap base. On a small laboratory scale, the author has carried out several experiments in this direction, the most successful being the incorporation of an aqueous solution of 0.1 per cent sodium salt of benzyl parahydroxybenzoate and 0.5 per cent sodium salt of methyl parahydroxybenzoate.

These sodium compounds were dissolved in a little warm water and the solution carefully and thoroughly milled into a well-dried neutral soap base, the resulting soap being as efficient in its action as if over 7 per cent carbolic acid had been incorporated, in place of the parahydroxybenzoic acid derivatives. The latter antiseptics, already widely used as cosmetic preservatives, are quite stable in soaps, mild, odorless and otherwise satisfactory. When using them in soap, production costs may be slightly increased, but even so, their possibilities should on no account be neglected.

AN entirely new type of soap that has made a strong appeal to the public imagination is a coconut-oil cold process soap containing mineral salts imported from the well-known Spanish spa of La Toja. The success of this product opens up all sorts of possibilities with regard to the incorporation in toilet medicated soaps of similar mineral salts (if such can be discovered), obtained from natural sources and exhibiting recognized curative powers.

The reason for using only naturally-occurring salts of proven merit is that such products have been found to exhibit properties that definitely cannot be matched by laboratory synthesis. The clinical evidence corroborating this statement is such as to cancel out entirely even the faintest suggestion of quackery or charlatanism. Possibly one of the reasons for the success of the above-mentioned soap in the treatment and conditioning of the skin is the slight

but constant radio-activity manifested by the salts that it contains. This radio-activity has been found by Messrs. S. & E. K. Rideal of London to be approximately 1/18th of the activity of uranium acetate.

Karl Pfaff (*Seifensieder Zeitung* 62, 1935, 61) has published quite a fair amount of information regarding the extensive experimentation that he has carried out on the incorporation of such water-soluble salts in toilet soap. He comments on the uselessness of adding trifling quantities of such salts to ordinary milled soaps, and rightly advocates the employment of soap bases capable of binding large amounts of electrolytes and exhibiting low surface tension in solution.

From products intended to exert a definite curative action on the skin, one may conveniently turn to the latest types of emollient and "cosmetic" soaps. Prominent among these latter are (a) lanolin soaps, (b) the so-called "milk" soaps, and (c) those which contain turtle and avocado oils. Turtle oil soaps were first brought into prominence shortly after the introduction of turtle oil into face creams.

For this type of soap, which is apt to be rather astringent if too high a proportion of turtle oil is used, about 5 per cent of the oil can be quite easily milled into the soap base in association with the usual superfatting agents. The special bleached and deodorized grades of turtle oil are the most convenient to use in such products, due to the fact that what little intrinsic odor is still left in them can quite easily be covered with suitable aromatics.

Avocado oil soap has not yet appeared on the British market, but now that several of the well-known houses have introduced avocado creams and lotions, there is every reason to believe that soaps containing this oil will also shortly make their appearance. Here again, the oil can be conveniently incorporated with the superfatting agents, the fact being borne in mind that the resulting soap should probably be tinted an attractive shade of green in order to cover up the yellowish-green discoloration due to the oil.

Milk soaps are really a misnomer, in spite of the fact that at least one brand (which, incidentally, is a very fine soap) experiences a good measure of popularity. Obviously the simplest method of producing a so-called milk soap is to incorporate one of the major constituents of milk in the shape of casein, instead of using the whole milk or milk in powder form. It is also desirable to introduce a preservative such as sodium benzoate or one of the soluble parahydroxybenzoic acid compounds. Casein is best added in borax solution to the liquid soap in the crutcher. It is suggested that 40 oz. of alkali-soluble casein should be allowed to stand for about an hour in approximately 60 oz. of cold water. A separate solution is then made up, consisting of 3 oz. of borax dissolved in 100 oz. of boiling water. The borax solution is then stirred into the swollen casein mass and when complete solution has taken place and the temperature fallen slightly, about 1½ ozs. of triethanolamine are stirred in. Such a casein solution may be added in the proportion of 2 or 3 per cent to the soap in the crutcher.

Highly superfatted toilet soaps of the Continental type are not very much in favor except in the country of their origin. Even so, it must be admitted that the superfatting of soaps has increased considerably during the past few years. Up to 5 per cent of lanolin may conveniently be incorporated, but not more than 1 or 2 per cent of petroleum jelly should be used.

VARIOUS claims have been made for toilet soaps incorporating solvents and it appears that petrol (gasoline) soap is one of the latest additions to those already on the market. Samples that have been examined certainly smell of gasoline and also lather noticeably well. While an opinion is not ventured regarding the composition of any established product of this type, it is suggested that a typical gasoline-containing soap could be made by mixing about 5 per cent of suitable petroleum hydrocarbons intimately into coconut oil and then cold-processing in the usual manner, with subsequent milling. Alternatively, the gasoline could be added to a coconut cold-process soap immediately after the emulsion had formed and just before the true saponification had set in. A British manufacturer of such soap, however, claims to have discovered a process whereby as much as 20 per cent of gasoline can be incorporated in the finished bar or tablet.

The employment of china clay or kaolin as a soap filler and cheapener has been fairly common practice in the soap industry for many years, but soapmakers are now coming more and more to agree with the conclusions of the late F. E. Weston, in which he strongly upheld the advantages that were to be gained in actual quality by incorporating a certain amount of colloidal clay in soap. Weston's findings have during the past few years been largely corroborated at the Laundry Research Institute, Moscow, by the Russian chemist Rehbinder and his associates. In brief, Weston held that colloidal clay, when properly incorporated in soap, produced a homogeneous mixture of soap which was actually an improvement on the original soap without clay. The points he raised in favor of clay-containing soaps were as follows:

1. The surface tension of their solution is lower than the solution of the original soap without clay.

2. They exhibit increased lathering properties.

3. Their emulsifying and consequently detergent action is markedly increased.

4. They exhibit greater absorbtive powder.

Whether or not the addition of kaolin to soaps is in every case desirable, it must be admitted that a considerably higher proportion of good-class toilet soap is now pro-

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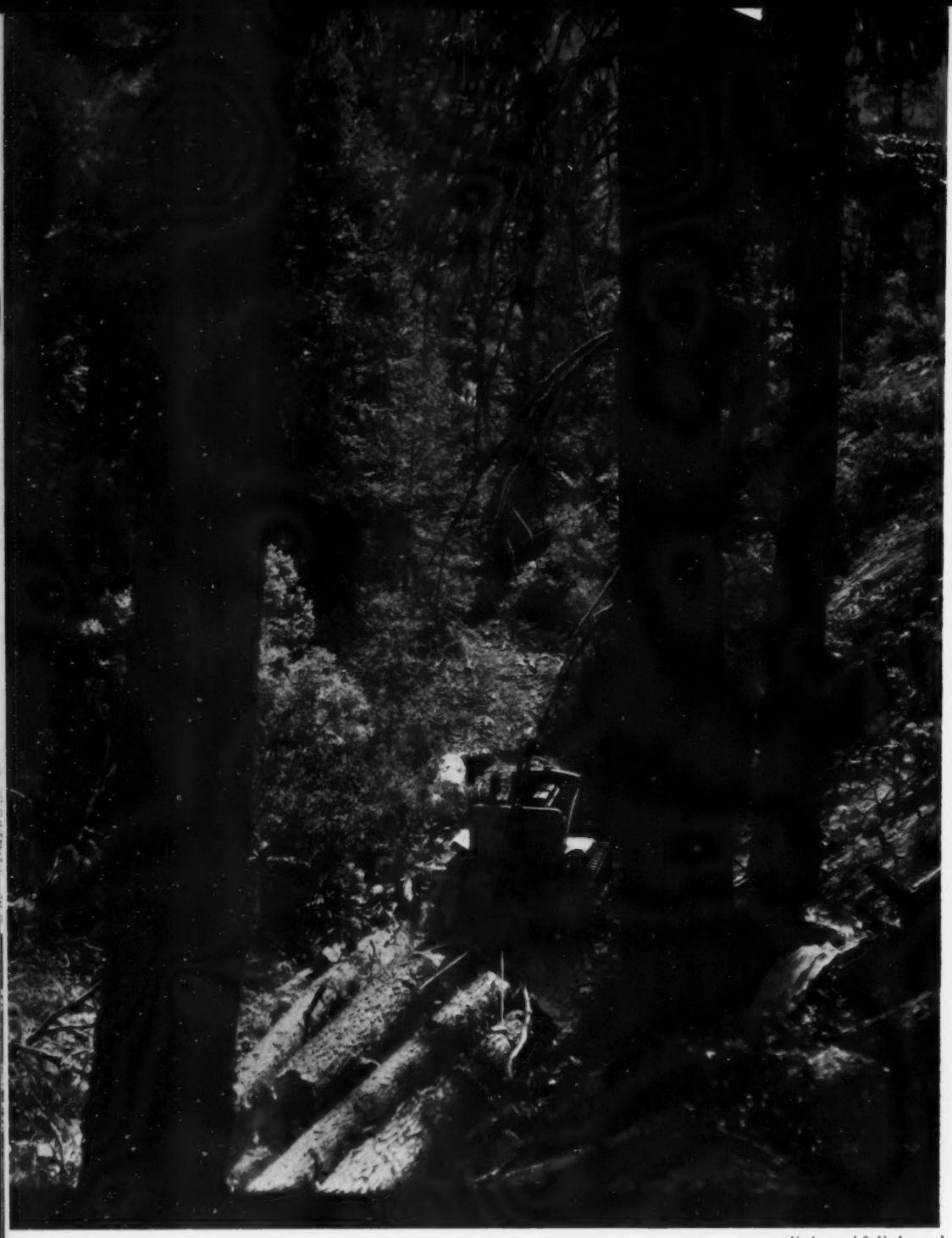

Underwood & Underwood

. . . 100,000 tons of fatty acids per year from the pine woods of America! This is the expectation for the near future of experts in the pulp and paper industry . . . increasing use of pine wood in paper manufacture means increased production of by-product fatty acids suitable for the soap kettle and other technical uses.

FATTY ACIDS from Pine Wood

By James A. Wallach

BECAUSE of the world-wide shortage of fats, oils and fatty acids, which together with the various import duties and excise taxes has led to many technical investigations in the field of fats and fatty acids of types not heretofore considered, this article is intended to bring up for discussion a fatty acid available from the paper and pulp industry. Considering that pine wood is rapidly displacing other woods as a paper-making material, it is apparent that the future of the paper industry will lean heavily towards the use of pine wood, particularly owing to the increasing demand for paper cartons, containers and other paper products. For this reason, the paper industry looms large as a future supplier of fatty acids.

Pine wood is popularly associated with rosin, but rosin by no means is the principal constituent of the fats and resins occurring naturally in pine wood. The relative amount of fatty acids present depends upon the climate, the species and variety of the tree, and numerous other factors. Whereas a tree that has been bruised or purposely tapped as in turpentining, exudes a fluid containing comparatively little fatty acids, an uninjured tree is relatively rich in fatty acids obtained from the sap fluid. It has been found altogether feasible to develop processes whereby fatty and resin acids occurring in the trees are recovered during the process of manufacturing paper from the pine wood.

The wood used in paper manufacture is cut into chips from one-half to one inch square and about one eighth inch thick. These chips are then poured into a steel pressure vessel or digester and steamed under pressure with a solution containing caustic soda and other chemicals. After several hours cooking, the contents of the vessel are discharged and the cooked chips freed from the solution. The washed cooked chips disintegrate to a pulp which is then converted to paper. About one-half of the wood dissolves during the cooking process forming a liquid from which the chemicals must be recovered in order to make the process economical enough to operate. The fats and resins originally occurring in the pine wood are saponified and dissolved out during the cooking of the wood chips and are present in the waste liquor as soaps.

The first step in reclaiming or recovering the chemicals from the waste liquor is by evaporation. As the evaporation proceeds, the liquor becomes more and more concentrated until the soaps present become insoluble and grain out much as soaps do in a soap kettle on adding salt. These curds which are skimmed off represent the raw material which the process depends on, as will be described.

The crude soap (curds) as first collected occludes considerable amounts of waste liquor, and in appearance, is a brown, frothy paste. Because of its considerable water content and impurities at this stage, it is seldom economical to ship this material without first converting the material to the free acid state. While many processes have been proposed for purifying the soap and using it directly, or for dehydrating the purified soap, very few cases are on record which have proven practical.

Product history indicates that the material was first collected in the Baltic countries of Europe and was then known as liquid rosin in all languages, Swedish, German, French and English. This designation apparently proved misleading or, at least, not sufficiently descriptive. In Germany, it soon became known as talloel or tallöl, combining the Swedish word from pine, which is *tall*, with their own word *oel* meaning oil. To use the strictly correct German, *kiefernoel* would have been confusing, for this means pine oil, a commodity which was already on the market and descriptive of a product entirely different from the product under consideration. Today the material is known as talloel or tallöl in European countries and also the term liquid rosin is occasionally referred to.

When this product was imported into the United States, and later when processes mentioning it were quoted in the literature, the United States Patent Office accepted the designation of liquid rosin and, curiously enough, also permitted a phonetic translation of the half-German tallöl into tall oil.

The tall oil imported into the United States soon earned a bad name because importers found the name connoted its source rather than any consideration of quality. The oil varied in color from black to lemon yellow, in consistency from liquid to solid, in odor from very bad to odorless, and its chemical composition was anyone's guess. It is therefore no wonder that when one American manufacturer undertook its production and sale, considerable antagonism met its early introduction, particularly since prejudice existed in regard to materials of a similar character as imported from the European markets. Today, this American manufacturer—one of the largest paper manufacturers in the world,—and, incidentally, the manufacturer of the paper on which this is printed,—offers the semi-refined tall oil under definite specifications by the name "Liqro." The same manufacturer markets the refined, double distilled material under the name of "Indusoil."

A number of processes for improving the quality of tall oil have been proposed, few surviving the experimental trials. These processes may be divided into two classes, one involving the distillation of tall oil and another involving other methods such as vapor washing, extraction, decantation, etc. Generally speaking, distillation gives a finer quality product, but a lower yield. In any purification process, as the impurities are removed, the tall oil exhibits an increasing tendency to crystallize. The crystals are mostly abietic acid, the principal acid contained in gum rosin. Tall oil distillation is not an expensive process. It usually compares favorably in cost with most of the other schemes proposed and consequently, where refined tall oil is desired, the distilled material is the one receiving preference.

Composition of Tall Oil

IT is to be regretted that the analytical chemistry of the higher fatty acids is not yet sufficiently developed to permit unqualified statements concerning the exact composition of tall oil. It would be helpful if the actual fatty and resin acids present could be identified with certainty. The vision of being able to compound soaps and soap products commercially in terms of the individual acids rather than in terms of tallow, coconut oil, cottonseed oil and other mixed fatty acids is ever before the chemist. A comparatively new product could then be offered in terms of its replacement value. Experience has taught that any comparison of tall oil with the fatty acids present in some better known fats or oils is dangerous. Attempts to make comparisons have not been wanting, and there has been no lack of investigators, but the problem is difficult. The manufacturer of refined tall oil has had to content himself with the generalized classification of the substances present.

Tall oil is said to contain three classes of compounds, (a) rosin acids (b) fatty acids, (c) non-acids such as sterols, higher alcohols and other unsaponifiable matter, but even this classification is oft' times worse than useless since it is generally misleading, frequently suggesting conclusions to chemists not borne out in practice. The following table gives typical analysis of tall oil from various sources and representing various types. In all cases the samples analyzed were from commercial deliveries and do not represent samples produced in the laboratory.

Because much misunderstanding has been encountered in interpreting these analyses, a more detailed discussion seems advisable.

The term rosin acids is given to those acids which do not esterify with methyl or ethyl alcohol after boiling for a few minutes in the presence of sulfuric acid. Rosin contains from 60 to 90 per cent of abietic acid which is a so-called rosin acid. Most of the common fats contain no rosin acids. Consequently, common fats adulterated with rosin are easily detected by determining the amount of rosin acids. However, with tall oil the procedure is not so simple. While crude tallol undoubtedly contains considerable abietic acid, most of this is removed in the distillation and refining. Therefore, when the so-called rosin acids in the double distilled tall oil produced in the United States are isolated, examination soon reveals they are certainly not abietic acid, and they do not resemble any grade of rosin. Abietic acid is a solid, melting at about 170° C. (approximately 340° F.). The rosin acids isolated from the double distilled tall oil are liquid even at room temperature.

That the general term fatty acids is entirely too vague is already recognized and much work has been done to clarify this situation. Today, chemists are no longer careless with names such as oleic acid, linoleic acid, linolenic acid and others. It is known that oleic acid has brothers with their double bonds in places other than the middle of the molecule. Other complicating factors also have been uncovered. In recent years not much has been published on the chemistry of the fatty acids in tall oil and nothing is available that can tell us what acids are really present. Previous work done indicates that palmitic, oleic and linoleic acids are present.

The greatest chemical puzzle in tall oil is that mixture of non-acids, the sterols, higher alcohols and other substances. While many chemists consider these non-acids as unsaponifiable matter, their results do not always check. If these substances were truly unsaponifiable, it should be possible to decant them when double distilled tall oil is made into

Tall Oil	*Acid Number*	*Saponification Number*	*Iodine Number (Hanus)*	*Rosin Acids %*	*Fatty Acids %*	*Non-acids Sterols, Etc.*
American—crude	140	....	....	58	18	24
American—distilled	164	....	117	35	50	15
Danish—crude	158-166	173-176	....	33	54-55	6-7
Danish—distilled	....	185	....	12	83	5
Finnish—distilled	155	173	....	37	58	5
Swedish—crude	115	129	....	..	..	..
Swedish—distilled	....	....	....	30	55	12

soap, but they do not separate out, even in very dilute solution and can be extracted by means of solvents. Soap products made from tall oil show no separation. Other investigators claim that the detergent power of other acids is increased and at any rate, detergency tests indicate that the double distilled tall oil is weight for weight as effective as red oil. Reports from the literature indicate that about 20 plant sterols have been found, but in most cases, the work was done under conditions which indicate that the tests and methods were generic rather than specific. Attempts by one chemist to isolate a definite compound were not successful as mixed crystals were encountered which would have tried if not defeated the patience and persistence of some of the old masters in the art of fractional crystallization.

Uses of Tall Oil

IN view of the complex nature of tall oil, it can only be suggested to manufacturers who consider its use that it be tried out in a practical test. Analytical data alone cannot decide the utility of this product. Where large scale tests are not feasible, preliminary laboratory experiments, however positive, are best translated to practice by blending the customary fatty acids in use with gradually increasing percentage of the tall oil.

The important considerations for the prospective user of any new product resolve themselves into questions of quality, uniformity and price. While in the past, European methods of introducing the material into the United States were confusing owing to the lack of uniformity of the product, there is reason to believe that future manufacture will avoid such trouble. At present, there is only one refiner of this product in the United States, but other plants are under consideration and it is likely that this turn will follow throughout the industry. The distilled tall oil made in the United States is free from mineral acids and therefore handles without corrosion troubles in iron containers and processing equipment. It is free from esters and other bacterial food and is therefore not subject to fermentation or rancidity. It is miscible with nearly all hydrocarbons and solvents and is insoluble in glycerine and water.

In Europe many years ago, fat shortages were encountered and therefore it is not surprising that many uses for tall oil were first developed there. With this in mind, some of the uses abroad are reviewed.

Today, bar soap is made with tall oil and upwards of 20 per cent is reported as being substituted for other fats in the soap kettle. In excess of this percentage, tall oil tends to soften the soap unless added alkalies are present. Liquid soaps made from tall oil for many years are sold the world over. Soft soaps, soap pastes, scrub soaps, are also acceptable. In Europe, one brand of tall oil soap paste, neutral in reaction, is reported to be more effective weight to weight than highly alkaline soap paste when used on very soiled materials. Many instances of superior detergent power of tall oil soaps have appeared to confirm the opinion of the manufacturers of emulsions that tall oil is an emulsifying agent of unusual power. Textile scouring soaps such as silk scouring or wool scouring soaps made with tall oil are satisfactory and quite widely used in Europe. Dry cleaning soaps made with tall oil are also being sold.

Recent researches in laundry practice indicate that soil can be removed more effectively if the soiled material is first impregnated with fatty acid and then run into the solution containing the alkali. It appears that the fatty acid softens and dissolves the soil and the whole is saponified and emulsified by the alkali forming soap *en situo*. The high cost of fatty acids as compared to soap is an objection even though relatively less of the fatty acids is required in this process. However, tall oil, because of its cheapness compared to other fatty acids, makes such a scheme practical.

In the manufacture of metal polish, wax polish, coal-tar and pine disinfectants, insecticides, agricultural sprays, textile lubricants, soluble oils, asphalt emulsions, metal cleaning compounds and other commercial products, experience indicates that tall oil is not only effective, but reduces costs.

In the petroleum industry, a number of commercial uses have developed. In the control of emulsions during the alkaline washing of acid petroleum distillates, it has been reported that in the case of a viscous Roumanian distillate, it proved more effective than oleic acid. In cutting oils and cutting emulsions and the compounding of oils for special purposes, double distilled tall oil has found numerous new uses. Because tall oil can be sulfurized, i.e., it will combine with large amounts of sulfur when heated to about 300-350° F., it finds use as a base for sulfurized cutting oils. Many greases are also incorporating tall oil.

In the mineral flotation field, tall oil is serving to replace the more expensive fatty acids such as red oil, particularly in the flotation of alkaline earth minerals, for example, phosphate rock. In the paper industry, tall oil finds use as a sizing agent as well as an emulsifying agent for the wax used in paper sizing. In electric cells used in the manufacture of caustic soda from salt, carbon anodes impregnated with tall oil last as long as when impregnated with the more expensive oils.

Because tall oil contains chiefly unsaturated compounds, its use as a linseed oil substitute was explored very early in its history. When boiled with dryers it was found to yield films that became very hard, or tended to be brittle or short. Blending with other oils is reported to give satisfactory results, though plasticizing might be possible. Acceptable varnish resins can be produced where tall oil is combined with the polyhydric alcohols such as glycerine or glycol. Its use as a softening agent in rubber in place of the higher priced oleic and stearic acids is receiving consideration. Other uses under consideration are in the manufacture of adhesives, printing ink,

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POTASH SOAPS

. . . . prices and costs

(Part II)

THIS is the continuation of a discussion on prices, costs, and competitive conditions in the field of potash soap manufacture, which discussion was begun in the preceding issue of SOAP. (See Feb., 1937, issue, page 25.) Various questions on potash soap costs and prices were submitted to a group of manufacturers in this field in the form of a questionnaire. Altogether, twenty well-known potash soap manufacturers responded with their answers to the twelve questions submitted. The first six questions, including ones on methods of pricing, price revisions, possible price formulas, effects of competition in revising prices, and manufacturing costs, were discussed in the previous issue. The following gives extracts from replies to the last part of the questionnaire, both in the form of a consensus of opinion and as individual answers.

What Interferes With Profit?

Question No. 7. Will you outline briefly the chief factors which interfere with keeping prices of soap specialties at reasonable levels to permit a fair profit?

The reasons given are many and varied. The low cost of going into business, potash soaps being made a football by manufacturers primarily not potash soap manufacturers, the large number of small, irresponsible firms (estimated 550), ignorance of costs, poor quality products, low type salesmen, new firms breaking in, and excessive competition.

A. "The chief factors which interfere with keeping prices of soap specialties at reasonable levels are that there is no such thing as uniform quality and there are always chiselers in the business who do not know how to figure their costs—also the fact that every once in a while some of these smaller soap manufacturers get hard up for money and decide to convert their raw materials into cash regardless of price. We find that the large soap companies more or less keep their prices in somewhat of a reasonable level and it is very easy to compete with a large company. The chief difficulty we find in the price factor is the smaller independent soap manufacturers who do not seem to have the idea as to exactly what constitutes a fair margin of profit because they do not have a cost system and they do not know what good business ethics are."

B. "The fact that some Liquid Soap and Soap Specialties are being sold at much higher prices than the actual value to the consumer attracts many people into this business, causing an unstable market, leaving room for much 'chiselling'. Therefore, each manufacturer has to meet the conditions as they come up."

C. "The first factor which interferes with the keeping of prices of soap specialties at reasonable levels is the fact that $50.00 enables you to go into business. Another factor is that it is made a football by many organizations who are essentially not soap makers."

D. "The general factors which interfere with keeping the price of soft soaps at a reasonable level is due to the fact that some competitors practically give merchandise away and this is not confined to the small concerns either."

E. " Competition particularly of extremely small manufacturers, and perhaps a condition whereby there is not sufficient business at the present time to keep the manufacturer of this product going at full time, the result is that there is a hungryness for business which permits the manufacturer to be chiseled."

F. "Keen competition among manufacturers and desire of some manufacturers to 'turn over' their merchandise rapidly and very low profit. Keen competition among jobbers who buy on price alone."

G. "The main factor is; competition still feel that they have to give products away to get business."

H. "Would say that irresponsible manufacturers and what could be termed mushroom and curbstone dealers are responsible for cutthroat practices. Our organization, however, pays no attention to this kind of competition as we know that the quality of our products entitled us to a fair margin of profit."

J. "This we cannot understand as we know some manufacturers, who quote prices lower than it is possible to do business on."

Advances Cover Taxes?

Question No. 8. Have your prices generally been advanced sufficiently since the excise taxes went into effect to cover fully the extra cost of these taxes on the oils?

The answers to this question are split up just about evenly between "yes" or "no." The consensus of opinion, however, that prices generally in

the potash soap trade have not been advanced sufficiently to take care of the excise taxes,—in other words, the manufacturers in some instances are absorbing a part of these taxes. One large manufacturer states that he does not believe that any potash ash soap manufacturer has advanced prices sufficiently to cover the entire tax, and states further that he does not believe it has been possible to do so as the customers would not stand for it, and it would tend to retard the sales of all potash soaps.

Sell Jobber on Consumer?

Question No. 9. Do you sell strictly to the jobbing trade, strictly to the retail trade, or do you sell both?

In view of the firms who returned the questionnaire, this question was somewhat out of order. Most of those who reported sell to the jobbing trade and to converters. A few state that they sell to both, but they are in the minority. The object of this question was to enable us to classify the answers of the following questions.

What Price Differential?

Question No. 10. What price differential do you believe there should be in the prices quoted to consumers as compared to prices quoted to the trade? In other words, how much higher should consumer prices be than those quoted to jobbers?

A wide range is suggested,—in some cases based on the set-up and expenses of the jobber,—ranging from 20 per cent up to 50 per cent. Jobbers who run service organizations with high costs should be entitled to a wider range than the smaller jobbers who merely operate distributing organizations. It is pointed out that the jobber's sales expense is ordinarily high and that his margin of profit should run accordingly.

A. "Consumers prices should be sufficiently high to permit the jobber to make a normal profit. A jobber certainly should be entitled to make 30 per cent on bulk sales, and on the smaller sales I believe it is necessary that he should make 50 or more per cent. I should think this question could best be answered by asking some jobber what percentage of profit it is necessary for them to have in order to handle oil soaps. Their answer would be the proper amount of differential that should be charged between these two classes of trade. For if a manufacturer selling direct would not observe a price sufficiently to permit the jobber to do business, the result would be that he would be grabbing off all the business and the jobber would be doing nothing, and the manufacturer himself as well as the jobber would then be in trouble, and in order to protect himself he then goes out and slashes the price. The whole thing boils down to the fact that there should be a set price for the jobber and when selling to the consumer a higher schedule should be observed.

B. "Price differentials between dealers and consumers will be less on potash soap than liquid soap because as a rule, they are sold closer all the way down the line. Consumers' price as a rule would probably be from 33-1/3 to 50 per cent higher than prices quoted to the trade."

C. "This is a rather peculiar question and is one that is open to debate. We do not believe that any price to the consumer based on jobber's cost should be higher than his actual operating cost such as legitimate overhead, selling expense, etc. However, here again you have the same problem of jobbers who carry their business in their hat and do not have any operating expense. Naturally, the purchaser should know something about the responsibility of the company that he is doing business with and it is quite obvious that a man who has no overhead can sell at a lower price than a man who does. They both probably make the same margin of profit but one is more responsible than the other. This is something that an entire treatise could be written on and I do not believe could ever be solved because of the nature of the resellers in this business."

D. "On oil soaps a 50 per cent mark-up should be made by the jobber when he sells to the retail trade. This should be the minimum. However, the manufacturers who specialize in these items and sell direct to the retail trade often sell for three to six times the wholesale prices inasmuch as their sales expenses may run up to 30 per cent and 40 per cent."

E. "Believe there should be a price differential of not less than 33-1/3 per cent between the consumer and the jobber."

F. "We generally give jobbers 40 per cent discount over our retail prices."

G. "Sufficient to allow jobber to compete with your prices and yet pay their salesmen a fair commission."

H. "50 per cent of the cost in full drum lots; 60 per cent—half-drums; 75 per cent—quarter-drums; 100 per cent or more for smaller quantities."

Quantity Price to Consumers?

Question No. 11. Do you sell consumers in any case at the same prices at which you sell jobbers? In other words, do you make your prices on a quantity basis or do you recognize jobbers?

Practically all of the manufacturers in this case stated that they protect the jobber. Most of those who stated that they sell the consumer direct, stated in answer to this question that they sell only at jobbers' prices when they do so. Two manufacturers stated that they sell large consumers at the same prices as jobbers. One of these reported that this latter is only in cases where the quantities are large,—larger in fact that jobbing accounts usually buy.

Suggestions

Question No. 12. Can you make any additional comments which would help to clarify the situation in the publication of a discussion of this subject?

Do something to make all potash soap manufacturers, especially many of the smaller firms, conscious

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Wolf Packaging

Winner among counter display unit packages in Wolf Packaging Award. Furniture polish combination entered and used by S. C. Johnson & Son, Racine, Wis. Designed by E. W. Jones.

The seventh annual Packaging Exposition is scheduled to open March 23 at the Hotel Pennsylvania, New York, continuing through March 26. Featured at the show will be the winning packages in the annual Irwin D. Wolf competition. Among the winners this year are the following products in the soap and sanitary chemical field: "Sea Foam" soap powder, entered by Colgate-Palmolive-Peet Co., first award for most effective use of typography and lettering; honorable mention in the same class, "Twilight Garden" entered by Martin F. Schultes, Hewitt Soap Co., New York, first award in counter display entered by S. C. Johnson & Son, Racine, Wis.; effective shipping container, honorable mention, "Bab-O" used by B. T. Babbitt Co., New York, and entered by Robert Gair Co., New York; effective use of elements of design to create shelf visibility, honorable mention, "Sea Foam" soap powder by Colgate-Palmolive-Peet Co. and "No-Rub Shoe White" by Wilbert Products Co., New York.

A full program of talks has been arranged for the show, to include the following: "Private Brand Packages and the Robinson-Patman Act" by Irwin D. Wolf; "Bulk Packaging Problems" by Ralph Everett, Keystone Varnish Co.; "The Service Charge" by Roger L. Putnam, Package Machinery Co., and H. M. Bowman, Stanco., Inc.; "Silicate of Soda Closures" by J. D. Vail, Philadelphia Quartz Co.

A meeting of the Production Management Association will be held in connection with the Packaging

Honorable mention to Twilight Garden Toilet Soap of the Hewitt Soap Company, Dayton, O. Blue laminated cellophane covered box with white lettering. Entered by Martin Schulties. Designed by J. Probasco.

Awards for 1937

Show, we are advised by William M. Bristol, Jr., of Bristol-Myers Co., Hillside, N. J., president of this newly formed organization. The group has been operating since last July when organization plans were drawn up by sixty representatives of interested companies at a meeting in Cincinnati. It is the purpose of the group to obtain and catalog information on packaging materials, machinery and packaging problems based on the experience of the various members. A restricted membership is planned, and the organization will maintain a permanent secretary to further its work. Annual dues have been set temporarily at a nominal figure of $25.00 per year. The first official meeting of the group will be held on March 25 at the Pennsylvania Hotel at which time a permanent organization will be set up and officers elected. Further details are available from any of the following list of officers and directors:

Officers: William M. Bristol, Jr., Bristol-Myers Co., Hillside, N. J., president; H. M. Bowman, Stanco, Inc., Elizabeth, N. J., vice-president; H. F. Brownell, McKesson & Robbins, Inc., Bridgeport, Conn., treasurer; *Directors:* J. A. McConnell, Eli Lilly & Co., Indianapolis; A. P. Walters, McCormick & Co., Baltimore; H. A. Sumner, Norwich Pharmacal Co., Norwich, N. Y.; L. P. Weiner, Hiram Walker & Son, Peoria, Ill.; D. G. Browne, Shenley Products Co., Cincinnati; J. Y. Lund, Lambert Pharmacal Co., St. Louis; H. J. Lehman, Wildroot Co., Buffalo; W. Van Alan Clark, Allied Products, Inc., Suffern, N. Y.

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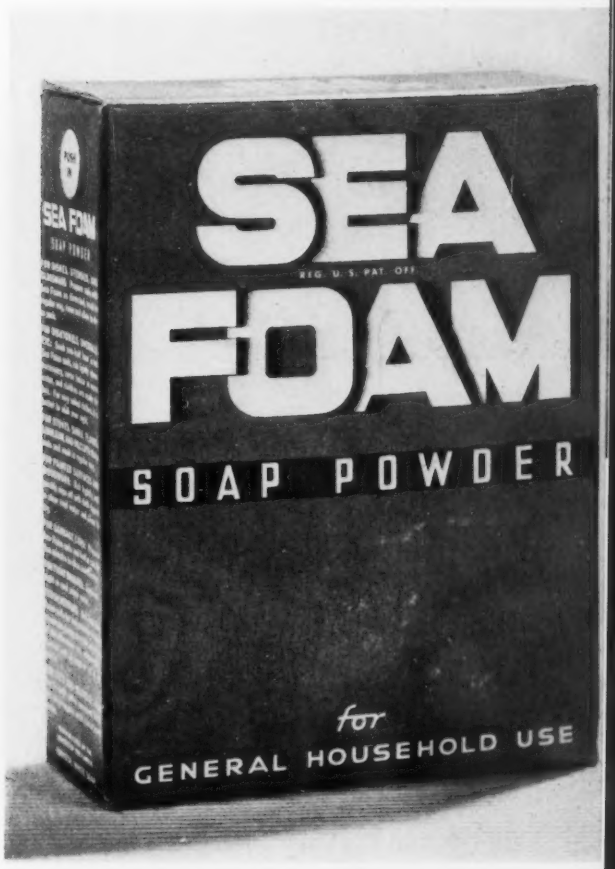
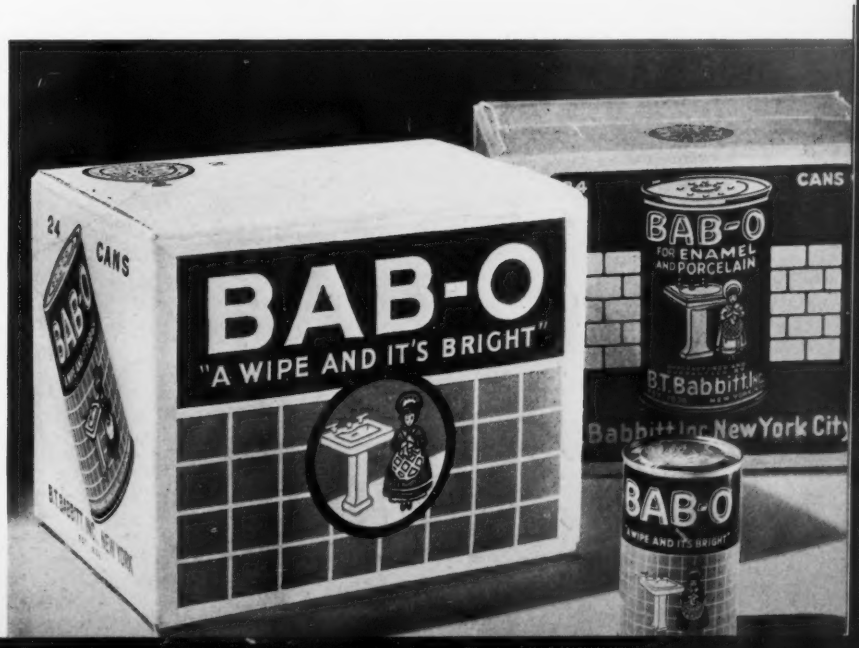


Winner for most effective use of typography or lettering. Sea Foam Soap Powder of Colgate-Palmolive-Peet, entered and used by that company. Designed by Simon de Vaulchier.



Honorable mention for shipping container for new Bab-O package of B. T. Babbitt Company. Designed and manufactured by Robert Gair Company.

New Products

Handi-Rolls, a new combination of steel wool rolls and small cake of scouring soap, by the American Steel Wool Manufacturing Company of Long Island City. Two bright red boxes of steel wool and one of soap, taped together, make up the combination.

A new style five-gallon pour pail for the dairy and stock spray of Dr. Hess & Clark, Inc., Ashland, Ohio. The steel container designed and manufactured by the Wilson & Bennett Manufacturing Company of Chicago.

E'Von Cold Cream Soap, a French milled soap which is reported meeting with more than usual success recently. Manufactured by J. Eavenson & Sons of Camden, N. J. Black coated paper box with white lettering.

and

Packages

Another package of beauty is added to the line of Wrisley toilet soaps. The new Gardenia Toilet Soap with cold cream base manufactured by the Allen B. Wrisley Company of Chicago.

United Drug Company of Boston puts a new package of self-polishing liquid floor wax on the market. Brightly contrasting colors in yellow, orange, and black.

A new vitamin soap,—Baby Skin Oil Soap, of Imogene Shepherd, Ltd., Chicago, containing Vitamin F and superfatted with Shepherd's Baby Skin Oil which contains Vitamin E. The cakes are wrapped in cellophane and the box is gold with a black base.

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NEWS . . . . . .

Heads Climalene Company

George H. Deuble, for the last twenty-two years vice-president and general manager of Climalene Co., Canton, Ohio, has been named president, succeeding his father, the late Walter H. Deuble, who founded the company thirty years ago. H. R. Ickes, director of sales has been advanced to vice-president and A. W. Deuble, factory manager, becomes vice-president in charge of production.

Soap Specifications Meeting

Committee D-12 of the American Society for Testing Materials, which is working on a set of specifications for soaps and detergents, will have its spring meeting at the Hotel New Yorker, March 30, according to an announcement by Harry P. Trevithick, chairman. Section chairmen have been advised that they should make their reports by March 1 to the chairmen of the respective subcommittees, so that these section reports can in turn be consolidated into a general report to be filed with the chairman by March 15. After the March 30th meeting, which will be a full-day session, the group will have until April 20th to put its consolidated report before the American Society for Testing Materials.

Announce Fels Ad Plans

Advertising plans covering the 1937 campaign on "Fels-Naphtha" laundry soap and soap chips have just been announced by Cyril G. Fox, sales and advertising manager of Fels & Co., Philadelphia. They include use of half-page advertisements in Sunday newspaper comic sections with a total circulation of over 18,000,000, use of national magazines with a combined circulation of over 19,000,000, and a radio schedule over thirty-one coast to coast stations. An offer of a gift handkerchief for the bottom of a large-size package of "Fels-Naphtha" soap chips will be featured.

Danz Kirkman Manager

Arthur F. Danz, formerly manager of the industrial division of Colgate-Palmolive-Peet Co., has recently resigned this position to

become vice-president and general manager of Kirkman & Son, Brooklyn. Mr. Danz has been connected with the soap industry for the past twenty-eight years, both as a manufacturing and sales executive. During that time he has had an opportunity to become familiar with problems of the industry in the middle west and on the Pacific coast, as well as in the eastern territory.

C-P-P Advances Stuart

Martin M. Stuart, manager of the glycerine sales department of Colgate-Palmolive-Peet Co., has been appointed manager of the industrial sales department in addition to his present office. He succeeds Arthur F. Danz, who has joined Kirkman & Son, as vice-president and general manager.

Building New Yardley Plant

The new addition to the plant of Yardley & Co., now being constructed at Union City, N. J., is expected to be completed by the end of May. It is a four story structure, 80 by 80 feet and will cost close to $100,000.

Restrict Soap Advertiser

George F. Dodge, trading as Windsor Soap Co., Buffalo, has signed a stipulation with the U. S. Federal Trade Commission, agreeing to stop use of the words "olive oil" on labels or in advertising matter to describe soap products whose fatty content is not composed wholly of olive oil, and use of the word "olive" in any manner so as to imply that the fatty content of the product so designated is composed wholly of olive oil, when such is not a fact. The company will also cease using the words "soap makers" or "factory" in any manner which may create the impression that they own or operate a factory in which their products are manufactured, when this is not true.

Cite Indianapolis Soap

Indianapolis Soap Co., Indianapolis, Ind., has been charged with unfair competition in the sale of soap in a complaint just issued by the U. S. Federal Trade Commission. Fictitious price marking is charged in the complaint. John L. Horner has been named trial examiner by the trade commission, with DeWitt T. Puckett as the commission's attorney.

Chambers Joins Bourjois

Stanley H. Chambers, formerly in the advertising agency field, has been appointed advertising manager of Bourjois Sales Corp., New York. Nelson W. Millard, formerly advertising manager, has been appointed metropolitan salesman.

Dark days in Cincinnati during the recent flood of ıe Ohio River. (1) View of the Spring Grove Av. ain entrance to the Procter & Gamble Ivorydale lant. (2) Tanks afloat at the plant of Emery Indus- ies. (3) Fireman standing in oil covered water during the "Black Sunday" fires in Cincinnati near American Products plant. (4) Rear of American Products building,—one-story buildings almost submerged. (5) Careening and floating tanks at the P & G edible division. (6) Spring Grove Av. bridge over Mill Creek at Ivorydale. (7) Emery Industries Plan crest of flood. (8) Another view of Emery plant Mill Creek in background. (9) Ivorydale Rail station with Emery and P & G plants.

Protest Flood Damage Reports

MANUFACTURERS in Cincinnati and other sections of the Ohio River Valley are indignant over what they term the gross exaggeration in reports of damage to their plants and stocks by the recent floods. These reports, they state, have injured their businesses more than the flood itself by giving the impression generally throughout the country that they were unable to supply and ship their goods when in fact they were ready and able to do so. They claim that thousands of orders were diverted away from plants in the flood areas and that for several weeks after the flood, there was a dearth of business as a result of these reports. Most plants were handling business a few days after the water receded, it is stated, and before Feb. 15 were in full swing. Boilers at the Procter & Gamble plant at Ivorydale were shut down altogether for less than 16 hours. Hunnewell Soap in Cincinnati stated that everything had been moved to upper floors and their losses would probably not exceed one hundred dollars. Most of the flood-wise firms in the area had all merchandise well above the water level by the time the maximum stage of the flood was reached.

A letter from the Du Bois Soap Company, whose plant is located close to the river bank on Front Street, Cincinnati, also states that the damage was not as bad as pictured. The letter states:

"Your reports in February SOAP paint a much too gloomy picture of the extent of flood damage to our Company.

It was bad enough, and I don't want to minimize it unduly, but the very fact that our factory stands practically on the Ohio River bank proved to some extent to be our salvation. For we had had experience with floods before. We were quite accustomed to seeing the River take possession of the street in front of the plant, and our railroad sidings, for a day or two, and then evacuate.

This time the water kept right on rising until it reached a depth of six feet in our second story, and completely submerged our one-story office building. But, by dint of some herculean labor by our production and shipping departments, we were able either to ship to various Du Bois warehouses, or to move to higher floors, at least 90 per cent of the damageable materials on the flooded floors.

Simultaneously, the office force moved all records and nearly all equipment to the third floor, out the window and into a waiting baggage car on the railroad trestle, for transportation to our temporary offices uptown. As routine flood precaution, partly full outside storage tanks had been consolidated when the flood warnings came out, so that some tanks would be too heavy to float, and the others were securely lashed down.

So our major loss was in the office building. Fortunately we had been working for a long time on plans for a new three-story office building. We expect now that this will be rushed to completion at once, leaving our temporary offices in our present uptown quarters until that time.

The messy cleanup job is now finished. Water, telephone and electric service have been restored, and manufacturing will be resumed in part of February 10, being stepped up gradually until all departments should be back to normal well before the end of the month.

Very fortunately for us, we had heavy stock of all our products in warehouses throughout the country when the unprecedented flood struck, so we have been able to continue our business with remarkably little interruption, considering the general magnitude of the disaster up and down the Ohio River valley."

To Manufacture Cleaner

The firm of Stone & Weaver has been organized in Leaksville, N. C., to manufacture a specialty cleaner. Other lines will also be handled on an agency or jobbing basis.

Colgate Stock Issue

Colgate-Palmolive-Peet Co. is reported to be planning a new issue of preferred stock to replace its present $24,670,000 in 6 per cent preferred. The new issue, it is reported, may carry a dividend rate of 4½ per cent, together with possible stock purchase warrants or conversion privileges.

New Coast Soap Firm

Spanish Queen Soap Co., has been organized in Los Angeles by Roy V. Farnsworth of 1259 South Rowan Street, Los Angeles, and Walter Lawton of 246 Grant Street, Pasadena.

Accident at P. W. A. Plant

A worker in the P.W.A. soap plant operated in Pasadena, Calif., was critically burned recently when he fell into a vat of hot tallow. The worker, Harry Rosebrook, slipped into the tallow tank when a wrench with which he was turning a connection jerked loose. Physicians at the Huntington Memorial Hospital said that he probably would not recover.

Jackson Dishwasher Merges

Jackson Dishwasher Co., Cleveland, has just merged with Grimm Mfg. Co. The new concern will operate as Jackson Dishwasher & Grimm Mfg. Co., with headquarters at 3703 East 93rd St.

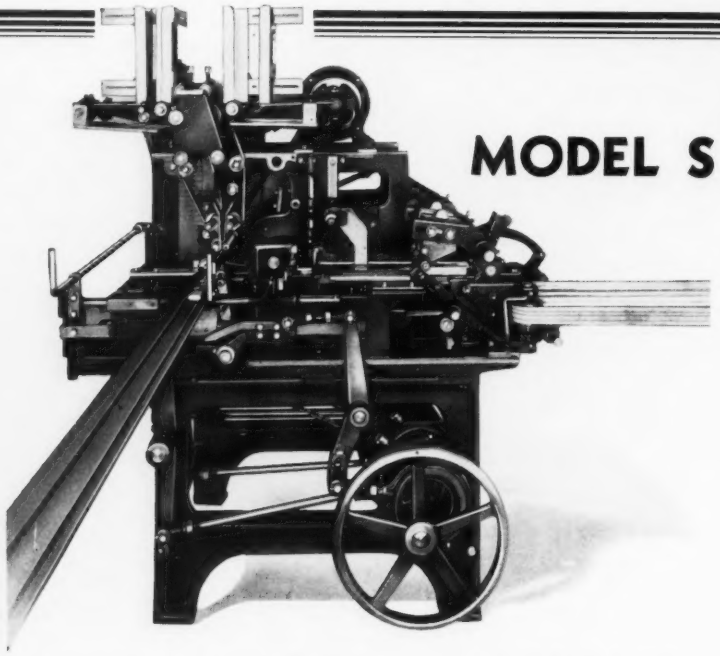
Corn Oil Soap Moves

Corn Oil Soap Co., Los Angeles, has moved recently from 2438 East 8th St. to 2301 East 53rd St.

Panama Soap Duty

The Republic of Panama has recently increased the import duty on ordinary laundry soap from 12 cents to 15 cents per gross kilo.

Used by more SOAP MANUFACTURERS than any other wrapping machine



MODEL S

Because it gives them distinctive packaging at lowest cost, the Model S has been universally adopted by soap manufacturers all over the country for toilet soaps.

Such strong preference gives evidence of important advantages. Hadn't you better look into the specifications of the Model S? Note the following points: Wraps 150 cakes per minute. Requires but one operator. Uses transparent cellulose, and many different kinds of wrapping materials. May be equipped to insert cardboard or circular between inner and outer wrapper, if desired. And, with perfect uniformity, the Model S produces the neatest, most secure wrapping—an important consideration in packaging a product which must satisfy the critical eye of the feminine buyer.

This extremely versatile machine can be readily adapted to special wrapping requirements.

Write for Complete Information

PACKAGE MACHINERY COMPANY, Springfield, Mass.
NEW YORK CHICAGO CLEVELAND LOS ANGELES
Mexico, D. F., Apartado 2303 Peterborough, England: Baker Perkins, Ltd.
Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY
Over a Quarter Billion Packages per day are wrapped on our Machines

Form Potash Soap Division

A Potash Soap Division of the Association of American Soap & Glycerine Producers was organized

Charles Solly

Feb. 12 at a meeting at the Hotel McAlpin, New York. The initial membership of the new division comprises 33 leading manufacturers of potash soap, wax products, etc. Charles Solly of the Harley Soap Co., Philadelphia, was elected chairman of the Division with Herbert Kranich of the Kranich Soap Co., Brooklyn, as vice-chairman. J. E. Stevens of the Association of American Soap & Glycerine Producers was chosen as secretary.

The potash soap group held an all-day meeting, discussing trade practices, state and federal legislation, legal matters affecting the industry, and prospects of improving the organization of the industry. An executive committee to plan out the line of activity of the Division was selected. The following are on this committee, along with the officers: Melvin Fuld, of Fuld Brothers, Baltimore; I. Katz, of J. Eavenson & Sons, Camden, N. J.; R. H. Young, of Davies Young Soap Co., Dayton, O.; Leonard Schwarcz, of Clifton Chemical Co., New York; William J. Schmidt, of Superior Soap Co., Brooklyn. This committee will also act as a general industry Grievance Committee. A sub-committee on waxes and wax products was chosen to include Messrs. Fuld and Young, along with Joseph Green, of Oil Refining & Specialties Co., Brooklyn. The Division will operate as an active section of the parent Association of Soap & Glycerine Producers.

Soap Meeting—April 8

A general meeting of the soap industry will be held in Chicago, April 8, under the auspices of the Association of American Soap and Glycerine Producers. The meeting will be held at the Hotel Blackstone and will start at 1.45 P.M. All soap manufacturers are invited. Make your plans to attend now.

Retires as Beach Soap Head

William E. Philbrick, who has been connected with Beach Soap Co. for the past fifty years, announced his retirement as president of the concern at the annual meeting held February 10. He will continue to serve as a director and has been named chairman of the board. The new active head of the concern is Edward S. Bassett. Other new officers include: Gordon R. Fulton, vice-president and general manager, and Charles C. Bassett, treasurer and clerk.

Mr. Philbrick entered the employ of Beach Soap Co. as assistant bookkeeper in 1887 and became secretary and treasurer ten years later. On the death of Irving E. Beach in

William E. Philbrick

1909 he was made general manager in addition to treasurer. For the past five years he has served as president and treasurer. He lives in Winchester, Mass., is vice-president of the Lawrence Savings Bank, a member of the Lawrence Rotary club and Phoenician lodge, A. F. and A. M.

The Beach Soap company is one of the oldest soap manufacturing concerns in the United States. It was established in Dover, N. H., in 1828 and nine years ago observed its one hundredth anniversary.

David A. Bennett, president and E. J. Strobl, vice-president of Albert Verley, Inc., who have moved into a new and larger office and plant at 1621 Carroll Ave., Chicago. At the new location the firm's facilities for manufacturing aromatic chemicals and for compounding perfume specialties have been considerably expanded. Another recent change in the Verley organization occurred when A. J. Dedrick was appointed manager of the New York office, succeeding L. J. Zollinger whose plans are announced elsewhere in this issue. Mr. Dedrick has been with Albert Verley, Inc., for several years.

Something Above The Ordinary

Achieved With Our Line of

Perfume Specialties!

- Gardenia
- Jasmin
- Dahlia
- Florian
- Fougere
- Lilac
- Lys
- Sandalwood
- Roseone
- Tuberose
- Cologne
- Easter Lily

for
soaps
shampoos
bath
salts
etc.

ORDINARY odors, we suppose, do well enough for ordinary products. We have long had a feeling, though, that the manufacturer who is making a product above the ordinary grade should take sufficient pride in it to give it an odor to match its own high quality. The best deserves the best, is our theory.

Another of our well-founded ideas is that the proper selection of a high-type odor can do much to lift the average product out of the strictly ordinary class. Time and again we have seen a shift to an improved odor give some manufacturer's soap, shampoo or spray that added air of distinction that brings increased consumer acceptance and added sales.

For years Roure-Bertrand Fils and Justin Dupont have been developing specialties, both natural and synthetic, for use by particular buyers. Experience gained through many years' contact with the European perfume industry, coupled with a definite knowledge of American requirements, put us in an admirable position to advise on perfuming problems. Let us suggest an odor for that new item in your line.

ROURE - BERTRAND FILS and JUSTIN DUPONT

Represented by:

GEORGE SILVER IMPORT CO.

351 FOURTH AVENUE - NEW YORK CITY

CHICAGO
722 West Austin Ave.

LOS ANGELES
819 Santee St., Room 622

A. & P Attacks Patman Act

ATTACKING the constitutionality of the Robinson-Patman Act and denying the charges contained in the U. S. Federal Trade Commission's recent complaint against it, the Great Atlantic & Pacific Tea Company has asked that the complaint be dismissed.

In attacking the constitutionality of the law, A. & P. charges that Section 2 (c) violates Article 1, Section 8, subsection 3 of the constitution in that it deprives persons of the right to contract, irrespective of the effect of such contract on commerce among the several States, and this power was withheld from the Congress by the tenth amendment to the constitution.

The company also holds that the law violates the fifth amendment, in that it deprives persons of the right to freely contract with respect to the rendition of personal services and is not due process of law.

The company holds also that the Act is unconstitutional in that it seeks to make unlawful an agreement between persons with respect to the payment for services without regard to the effect on interstate commerce of such services; and seeks to make unlawful the determination by the parties to such contract of the value to each of the services so rendered.

A. & P. also charges that subsection (b) of Section 2 of the Act confers power upon the Federal Trade Commission to prevent "discrimination in price or services or facilities furnished" without regard to whether the effect of such discrimination may be substantially to lessen competition, to tend to create a monopoly, or to injure, destroy or prevent competition.

The brief further charges that the Act is in violation of the Constitution in giving the Commission power to fix prices of commodities dealt in by those to whom the Act is found applicable; the power to determine whether sales are "unjustly discriminatory or promotive of monopoly" and to stop same; and the power to prescribe the terms on which those to whom the Act is applicable may deal with each other.

The Act also violates the fourteenth amendment to the constitution, the brief claims, because it impairs the private right of freedom of contract and withholds from a person owning or operating a store or stores the right to purchase commodities on the best available terms and on terms satisfactory to the seller; it withholds from parties the private right of contract with respect to the value of services and facilities rendered by the seller to the buyer and it withholds from the manufacturers or seller the private right of contract with respect to its sales and distribution.

Surgical Soap Tax-Free

The five per cent federal excise tax on soaps is not applicable to tincture of green soap, U.S.P., or to liniment of soft soap, U.S.P., according to a recent ruling of the U. S. Bureau of Internal Revenue, when these soaps are sold without any recommendation for use for any toilet purpose.

Swan-Finch Moves

Swan-Finch Oil Corp., New York, has moved recently to 30 Rockefeller Plaza.

Holman Plant Sold

Chicago Sanitary Products Co., Chicago, has just purchased the Holman soap plant at 31st and Fox Streets from Newman Tallow and Soap Machinery Co. Charles R. Lichtenberg, president of Chicago Sanitary, announces that they expect to be settled in their new quarters by May 1st. At that time it will be determined what new products will be added to their line. Chicago Sanitary has also recently purchased the business and assets of Duraglaze Co., Chicago manufacturers of "Duraglaze" liquid floor wax and other floor finishing preparations.

HOW to improve Detergents and Profits

IS YOUR research department working on a new product? Or have you an established cleaner that you want to improve? The line of P. Q. Silicates of Soda, including sodium metasilicate (Metso Granular) and sesquisilicate (Metso 99) offers you at least a half dozen detergent advantages:

1. *High active alkalinity*
2. *Silica content which restrains corrosive action*
3. *Sustained cleaning activity*
4. *Greater bactericidal effect than other sodium salts*
5. *Free rinsing quality*
6. *Attractive appearance*

SOME P. Q. POWDERED SILICATES

G Brand . . . . . Ratio 1:3.22
GC Brand . . . . . Ratio 1:2
Metso Granular . . Ratio 1:0.97
Metso 99 . . . . . Ratio 3:1.94
(*Ratio of alkali to silica*)

More than one fabricator has said "We're enthusiastic over the sales increase of our silicated cleaner". When can we discuss putting a P. Q. Silicate of Soda to work for you? At least, don't delay in sending for a free copy of Bulletin #172, "P. Q. Silicates of Soda in Lump and Powder Forms".

EST. 1831

PQ REG. U.S. PAT. OFF.

PHILADELPHIA QUARTZ COMPANY

General Offices and Laboratory: 125 S. Third St., Philadelphia. Chicago Sales Office: Engineering Bldg. Distributors in 60 cities. Plants at: Anderson, Ind., Baltimore, Md., Chester, Pa., Gardenville, N. Y., Kansas City, Kans., Rahway, N. J., St. Louis, Mo., Utica, Ill. Sold in Canada by NATIONAL SILICATES LTD., Toronto, Ontario.

P.Q. SILICATES OF SODA

Court to Rule on Oil Tax

It is expected that the two test cases on the constitutionality of the excise tax on the processing of Philippine coconut oil will come before the U. S. Supreme Court about the second week in March. The two suits were brought by Haskins Brothers & Co., Omaha, Neb., and Cincinnati Soap Co., Cincinnati, challenging the constitutionality of the tax measure. Both cases are on the Supreme Court calendar now as the result of writs of certiorari. They were unopposed by government representatives in an effort to expedite a final settlement of the case.

Check Pine Bath Advertiser

Pine Products International, Inc., New York, has signed a stipulation with the U. S. Federal Trade Commission under which it agreed to cease representation in advertising matter that its bath preparations, designated "Swiss Pine Bath," "Pine Bath Siberia" and "Balpine," possess such therapeutic properties as to render them a competent treatment for disorders of the nervous system, sleeplessness, neuritis, rheumatism, colds, and conditions of the respiratory system, the heart and lungs. The company also will desist from use of the word "imported" alone or with other words such as in the phrase "Imported Pine Essences," so as to imply that its products consist wholly of pine essence or are wholly imported, when such is not a fact, and from use of the word "laboratories" so as to imply that it owns or operates a laboratory.

Standards Board Set Up

Organization of a Board of Standards by the Toilet Goods Association has recently been completed, and the group is now ready to start functioning. The first work of the board will be on advertising copy, the procedure being for members of the industry to submit their copy to the advertising advisory committee for suggestions before release. Any questionable scientific claim can thus be checked in advance, with the assistance of the scientific sub-committee which has been set up. The full committee consists of H. L. Brooks, president of the association, Coty, Inc.; A. H. Bergmann, the Oxzyn Co.; Paul Douglas, Bourjois, Inc.; Hugo Mock, general counsel for the association; Charles A. Pennock, Hudnut Sales Corp.; Cecil Smith, Yardley & Co., Ltd., Charles S. Welch, secretary of the association and H. Gregory Thomas, director of the U. S. Board of Standards.

Spencer Kellogg Plant Operating

The new $1,000,000 vegetable oil plant of Spencer Kellogg & Sons in Los Angeles is now reported to be in full operation. With the forty-eight presses of the mill running, the plant's capacity will be 6500 bushels of seed per day. Because of tariff restrictions on coconut and other oils, the production of oil for soaps, originally planned as the main enterprise of the mill, will not at present be a major part of the company's program. Plans have been changed to push the production of linseed oil, and the huge elevators will store 300,000 bushels of flaxseed. Shipments of coconut oil will continue to arrive at the plant, but major operations, until the tariff situation changes, will be restricted to production of drying oils. The new plant has its own 600-foot wharf along Cerritos Channel, where the company's own fleet of freighters are docked.

Mathieson Appoints N. Y. Q.

Appointment of New York Quinine and Chemical Works as less carload jobbers has just been announced by Mathieson Alkali Works, New York. N. Y. Q., whose headquarters are at 99 North 11th Street, Brooklyn will handle Mathieson's light soda ash, solid and flake caustic soda, bicarbonate of soda and aqua ammonia in the metropolitan area.

P. & G. Crisco Contest

Procter & Gamble Co., Cincinnati, has launched a $10,000 prize contest in commemoration of the twenty-fifth anniversary of Crisco.

Talks on Soaps

John F. Savage, president of Albert Soaps, Ltd., Montreal, Canada, gave a talk on soaps at a recent meeting of the Montreal Heather Curling Club. He pointed out that the public sometimes loses out in its desire to follow the current mode. Often buyers ask for certain types of products, he said, which are not as good as might be offered, but which manufacturers must necessarily supply because of the demand. Many of the fancy types of soap, he indicated, can be produced only by the addition of adulterants. He also illustrated the same point in referring to shaving soaps. These are more efficient and economical than creams, Mr. Savage pointed out, but in the face of a public demand for creams these must be supplied. Mr. Savage is the third in a line of soapmakers in his family and is now training his son in the business.

Check Cleaner Advertising

Superkleen Co., New York, selling a cleaning fluid known as "Superkleen," has entered into a stipulation with the U. S. Federal Trade Commission to discontinue use of the words "Leaves No Rings," or any other words, on labels or in advertising matter which may imply that the product will not leave a ring on any fabric to which it may be applied. Mystic Foam Corp., Cleveland, selling another cleaning fluid designated "Mystic Foam," also signed a stipulation to cease misrepresenting its product. It agreed to stop advertising that its preparation is a disinfectant, that it contains chemicals which instantly destroy bacteria and moths in fabrics on which it is used, or that it will eliminate the larvae or eggs of moths from fabrics treated with "Mystic Foam."

Nat'l Oil Southern Plant

National Oil Products Co., Harrison, N. J., will start production shortly in its new plant at Cedartown, Ga. The opening of the new plant was made necessary by the shift southward in recent years of a substantial portion of its consuming trade.

IN this select group is at least ONE perfume that will lend added appeal to your product. Choose your fragrance and request us for free sample.

TYPE of ODOR:

ALMOND
•
CEDAR
•
VIOLET
•
LILAC
•
LILY
•
CLOVE
•
LAVENDER
•
ORIENTAL
•
CORYLIPSIS
•
HONEY
•
SYRINGA
•
ROSE
•
ORANGE BLOSSOM
•
HONEYSUCKLE
•
JASMINE
•
WISTARIA

INSECT mortality on the increase! Better smelling insecticides the cause! Woe betide Bugville!

And no wonder Bugville is alarmed. FRITZSCHE'S new insecticide and fly spray perfumes, by their refreshing fragrance, are rapidly breaking down resistance to the use of these materials; housekeepers are beginning to accept them as essential to scrupulous cleanliness in the home; sales of insecticides are climbing, climbing, climbing!

Obviously, the surest way to stimulate demand for insecticides is to remedy the product's greatest handicap—its unpleasant odor. FRITZSCHE'S Special Perfume Division has gone a long way toward correcting this condition by its intensive research in the application of perfumes to technical needs. Now, with an improved and enlarged series of technical perfumes to choose from it takes another step forward.

Be sure to investigate at least some of the accompanying odors. Each has been carefully selected for its power of coverage, its permanence and its low cost. Free testing samples will be furnished those manufacturers who write in mentioning this advertisement.

"Fragrance Creates Sales Appeal"

FRITZSCHE *Brothers, inc.*

816 WEST 8TH STREET LOS ANGELES, CAL
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77-79 Jarvis St., Toronto, Canada

PORT AUTHORITY COMMERCE BLDG.
76 NINTH AVENUE, NEW YORK, N. Y.
118 WEST OHIO ST. CHICAGO ILL

A *Fritzsche* PRODUCT for EVERY PURPOSE . . .

- **ESSENTIAL OILS**

  These basic materials are, as they should be, the finest that modern methods and scientific skill can produce—oils of the very highest purity and dependability.

- **AROMATIC CHEMICALS**

  Each item in this group represents a degree of purity and quality that assures finer aromatic effects **plus** the advantage of material economy.

- **FIXATIVES**

  We urge manufacturers to consult us in the selection of their fixatives. With many to choose from, there is always that one which will produce better results in a given case. Let us assist you in your choice.

- **BATH SALT PERFUMES**

  Combining perfume and color, our delightful Bath Perstels greatly simplify and facilitate the process of manufacture. Very economical. Send for details and complete list of blends.

- **DENTAL AND ORAL FLAVORS**

  The flavors in this group are of a special character, carefully blended to impart pleasant, clean, refreshing taste effects. Consult us for these or for the creation of exclusive flavor blends.

- **DEODORIZING COMPOUNDS**

  The use of **good** deodorizing compounds in technical products such as para blocks, naphthalene, cleansers, waxes, polishes, solvents, diluents, etc., is one of the best investments a manufacturer can make. For effective, low cost coverage we offer Neutroleum, Safrella, Javollal, Methalate "C", and others.

- **INSECTICIDES AND DISINFECTANTS**

  Note our advertisement on opposite page,—then investigate our improved line of odors. Each item in this group embodies the latest advances in scientific perfuming.

- **TOILET SOAP COMPOUNDS**

  A large group of perfumes especially prepared to meet the exacting requirements of soap manufacture. Exquisite scents at minimum cost. Send for particulars.

- **LIQUID SOAP AND SHAMPOO PERFUMES**

  These perfumes are highly soluble and mix readily with liquid soaps. Quantity required governed by cost limits and strength of odor desired.

- **SOAP COLORS**

  We can supply soap colors to produce any desired tint. For specific recommendations, send us description or sample of color to be matched.

- **ANTI-OXIDANTS**

  Highly important to the soap manufacturer are our newly developed preservatives for soaps, animal and vegetable fats and oils. Write us for full particulars.

SEND FOR SAMPLES

Chicago Perfumers Meet

The February meeting of the Chicago Perfumery, Soap and Extract Association at the Lake Shore Athletic Club was given over to a discussion of legislative matters and to reports by the new committee chairman. The following have been appointed as committee chairmen for 1937 by T. E. Hanshaw, the association's new president: T. E. Hanshaw, executive committee; George A. Wrisley, legislative committee; A. A. Baffetti, membership committee; Walter H. Jelly and A. F. Frantz, entertainment committee; A. F. Frantz, luncheon committee; Thomas Morgan, publicity committee; A. J. Anderson, golf committee and A. M. Burgh, bowling committee. Plans for a spring party to be held early in April were discussed.

4th Quarter Soap Sales

Deliveries of soaps by American producers for the fourth quarter of 1936 showed an advance of 10.2 per cent over the corresponding figures for the same quarter in 1935, according to a report of the Association of American Soap & Glycerine Producers. They showed a drop of 22 per cent, however, from totals for the third quarter of 1936. Total soap deliveries for the year 1936 showed an increase of 8.3 per cent over 1935, with the sales value in dollars being 12.8 per cent greater. The above data does not cover liquid soaps. Sale of liquid soaps during the year showed a decline in quantity, but an increase in sales value.

Smith Subsidiaries Dissolved

Werner G. Smith Co., Cleveland, has announced the recent dissolution of its two subsidiaries, Cook Swan Co. and Wyandotte Oil & Fat Co. The business of both will be carried on in the future under the name of the Werner G. Smith Co.

Drexel Adds to Plant

Drexel & Co., Baltimore, cosmetics and perfumes, have leased quarters at 1608 East Fairmount Ave. which will add about 4,000 sq. ft. to present floor space.

Heliocrete!

Another fragrance for the soap perfumer! A Heliotrope fragrance that is stable against alkali. Its efficiency as a fixative and the fact that it has no chemical odor increases its importance. Heliocrete successfully replaces four parts of Heliotropine in all compositions.

SCHIMMEL & CO., Inc.

601 WEST 26th STREET, NEW YORK, N. Y.

BOSTON . . CHICAGO . . LOS ANGELES . . TORONTO

Contracts Awarded

General Low Soap Bidder

General Soap Co., San Francisco, was low bidder in a recent opening for the Panama Canal on the following soap items: 7,500 lbs. laundry soap, $285; 3,750 lbs. toilet soap, $315; 5,000 lbs. chip soap, $424.50; and 20,000 lbs. soap powder, $520.

Treasury Bids

Colgate-Palmolive-Peet Co. was the low bidder in a recent U. S. Treasury Department opening on 175,700 cakes toilet soap, with a price of $.00908 per cake. R. M. Hollingshead Corp., Camden, N. J., was low bidder on 1,000 lbs. paste floor wax with a quotation of 11.6c.

Hollingshead Gets Polish

R. M. Hollingshead Corp., Camden, N. J., has just been awarded contracts covering 18,000 cans metal polish at 5.89c and 10,000 lbs. grease at 4.9c for delivery to U. S. Marine Corps, Philadelphia.

Sam Houston Soaps

Dixie Supply Corp., San Antonio, has been awarded a contract covering 350,000 lbs. laundry soap for Fort Sam Houston at 3.91c. Mirax Chemical Products Corp., St. Louis, awarded 300 pts. metal polish at 9c. Jos. Dixon Crucible Co., Jersey City, N. J., awarded 1,000 cakes stove polish at 4.3c cake. Buckeye Soda Co., Painesville, Ohio, awarded 14,000 cans caustic soda at 4.79c. Day & Frick, Philadelpia, awarded 2,000 cakes grit soap at 2.7c cake.

Sam Houston Awards

The following awards have recently been made on materials to be supplied to Fort Sam Houston, Texas: United Chemical Co., Dallas, 2,000 lbs. castile soap at 13c; James Good, Philadelphia, 3,000 lbs. saddle soap, 10.5c; Mirax Chemical Products Corp., St. Louis, 800 pts. metal polish, 9c; and Thompson-Hayward Chemical Co., San Antonio, 700 lbs. naphthalene, 8.5c.

Jeffersonville Soap

Hunnewell Soap Co., Cincinnati, has been awarded a contract covering 15,000 cakes grit soap, 10 to 12 ozs., at 1.9c per cake. Armour & Co., Chicago, awarded 440,000 ordinary unwrapped laundry soap, 16-oz., at 4.8c. lb.

Toilet Kit Awards

Colgate-Palmolive-Peet Co. has just been awarded a contract covering 128,200 cakes toilet soap for Brooklyn quartermaster at 1.65c. Trade Laboratories, Newark, N. J., awarded 128,326 tubes tooth paste at 3.14c, and 128,246 tubes shaving cream at 4.04c.

Wants Soap Agency

A concern in Casablanca, Morocco, is interested in securing an agency for sale of laundry and toilet soaps of American manufacture. It is specified that the products be in the low price range. Interested concerns may communicate through the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 2402.

Puerto Rico Agency Available

An agency for soaps is wanted by a concern in Mayaguez, Puerto Rico. Further information may be secured from the U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C., by referring to Inquiry No. 2053.

Soap Employment Off

The index of employment in the American soap industry, compiled by the U. S. Department of Labor, shows a mark of 97.8 for December, 1936, comparing with 102.5 in November and 95.6 in December, 1935. It is based on the three-year average for 1923-1925 as 100. The pay-roll index for December, 1936, registered 104.2 as compared with 101.6 in November and 92.8 in December, 1935.

Swift Builds on Coast

Swift & Co., Chicago packer, is preparing to build a $100,000 addition to its refinery at 3750 Jewel Avenue, Los Angeles, contract for which was awarded recently to Robert E. Millsap. The improvements include a four-story structure, 36 x 114 feet in area, and a two-story structure, 40 x 40 feet in area, with cork insulation.

Cotton Oil Stocks

Stocks of crude cotton oil on hand in United States as of January 31, 1937, totaled 146,395,000 lbs. as compared with 128,917,000 lbs. on the same date in the previous year. Stocks of refined oil were 460,448,000 lbs., Jan. 31, 1937, as compared with 453,256,000 lbs. on the same date in 1936.

Oil Dinner March 23

The annual meeting and election of officers of the Oil Trades Association of New York will be held at the Waldorf-Astoria, New York, March 23. The dinner will be informal, with no charge for members. Nominations to be acted on include the following: president, Joseph C. Smith, Smith-Weihman Co.; vice-president, Kenneth L. Patterson, Stanco Distributors; secretary, Albert J. Squier; and treasurer, Philip C. Meon, Borne Scrymser Co.

Soap in India

Most of the leading British firms of soap makers are now producing their standard brands of household and laundry soap in India. In addition to this, scores of small soap factories have been established all over the country, so that soap imports into India are rapidly on the wane. Of the remaining small import trade, competition with British products is very keen from the U.S.A. in the higher grade of branded toilet soaps. *Perfumery & Essential Oil Rec.* 28, 38 (1937).

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RAW MATERIALS for the soap and allied industries

ALCOHOL
AMMONIA
BLEACHING POWDER
BORAX
BICARBONATE OF SODA
CALCIUM CHLORIDE
CARBON TETRACHLORIDE
CAUSTIC SODA
CAUSTIC POTASH
DYES
DISODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILCATE
OXALIC ACID
POTASSIUM CARBONATE
SAL AMMONIAC
SALT
SAL SODA
SILICATE OF SODA
SODA ASH
TRISODIUM PHOSPHATE
CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID-RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
FATTY ACIDS
STEARINE
STEARIC ACID
GREASE
TALLOW

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Every raw material necessary for the manufacture of soap and allied products is carried in stock, and available at the right price for immediate delivery to your door.

CAUSTIC SODA
CAUSTIC POTASH
liquid . . flake . . solid

OLIVE OIL FOOTS

OLIVE OIL • TALLOW

COCOANUT OIL

All Packages
Drums—Tank Cars
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ISCO waxes

THROUGH long experience and specialization on Waxes we have learned the most effective methods of cleaning and refining Crude

BEESWAX—CARNAUBA—CANDELILLA

BEESWAX • Pure Yellow Refined
Pure White Sunbleached

CARNAUBA WAX • Pure Refined, in *Flake*, as well as *Lump* Form

CANDELILLA WAX • Refined, in Flake and Lump form

THESE gums are processed in our Jersey City plant. In refining, all impurities such as gums, rosins and dirt are removed—as far as physically and mechanically possible.

ISCO processing minimizes tackiness, so that, used in polishes, ISCO Refined Candelilla is free from the "drag" associated with ordinary Crude Candelilla. Heated to high temperature, ISCO Candelilla does not darken. We recommend it as a substitute for Carnauba to the extent of 15 to 35%—in the manufacture of polishes.

Domestic CERESINES

White • Yellow • Lemon Yellow • and Orange
Pure and Uniform

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GLOVERSVILLE, N. Y.

FACTORIES: JERSEY CITY, N. J., NIAGARA FALLS, N. Y.

New Trade Marks

The following trade-marks were published in the February issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

SLICK SHINE—This in cross formation describing polish and cleaner. Filed by Slick-Shine Co., Newark, N. J., Aug. 20, 1936. Claims use since 1900.

BENZOFOAM—This in solid letters describing dry cleaning soap. Filed by Benzofoam Products Co., Chicago, Oct. 19, 1936. Claims use since Jan. 1, 1910.

CHIPPEWA FLAKES — This in solid letters describing cleaning compound. Filed by J. B. Ford Co., Wyandotte, Mich., Oct. 29, 1936. Claims use since Oct., 1935.

OLD TOPPER — This together with sketch of man wearing topper, describing soaps, shaving creams, shampoos, etc. Filed by Moe D. Horowitz, Atlanta, Nov. 3, 1936. Claims use since May, 1935.

SO-WHITE — This on circular reverse plate describing powdered hand cleaner. Filed by H. Kirk White & Co., Oconomowoc, Wis., Nov. 12, 1936. Claims use since Sept. 15, 1936.

HY-CLO—This in solid letters describing bleach, germicide and disinfectant. Filed by J. H. Erbrich Products Co., Indianapolis, April 29, 1936. Claims use since March 15, 1936.

G & O—This in solid letters within circle describing moth deodorant. Filed by Goulard & Olena, Inc., New York, May 28, 1936. Claims use since July, 1925.

JAPANESE CHARACTERS meaning "Derris Sekken" describing insecticide. Filed by Kawahara Co., Los Angeles, June 10, 1936. Claims use since Sept. 24, 1931.

J. T.—This in solid letters within rectangle describing insecticides. Filed by J. Tondat Co., Hartford, Conn., Aug. 19, 1936. Claims use since June 5, 1936.

PETROCIDE—This in solid letters describing horticultural sprays. Filed by Latimer Goodwin Chemical Co., Grand Junction, Colo., Oct. 24, 1936. Claims use since July 1, 1936.

MERCONYL—This in solid letters describing antiseptic. Filed by Blue Line Chemical Co., St. Louis, Nov. 30, 1936. Claims use since Sept. 19, 1935.

XELSAFIX—This in solid letters describing detergent. Filed by Richards Chemical Works, Jersey City, N. J., Dec. 3, 1935. Claims use since December, 1934.

MAPROFIX—This in solid letters describing detergent. Filed by Richards Chemical Works, Jersey City, N. J., Dec. 3, 1935. Claims use since April, 1933.

COLDFOAM—This together with sketch of eskimo washing clothes, describing cold water soap powder. Filed by Savogran Co., Boston, Sept. 23, 1936. Claims use since Sept. 21, 1936.

PURE-SOLVENT — This on reverse plate describing detergent. Filed by Pure Solvent Co., New York, Oct. 3, 1936. Claims use since Aug. 20, 1935.

SEPTICENE—This in solid letters describing shaving cream and soap. Filed by H. Kirk White & Co., Oconomowoc, Wis., Nov. 12, 1936. Claims use since Oct., 1903.

ADSOL—This in solid letters describing cleaning compound. Filed by H. Kirk White & Co., Oconomowoc, Wis., Nov. 18, 1936. Claims use since July 26, 1936.

MAJOR'S—This in solid letters describing shaving cream and soap. Filed by Saks & Co., New York, Dec. 1, 1936. Claims use since Sept. 1, 1933.

SANI-TEX—This in solid letters describing hygienic soap. Filed by Natl. Retailer-Owned Grocers, Chicago, Dec. 7, 1936. Claims use since Oct. 13, 1936.

WIZARD—This in solid letters describing carpet cleaner and metal and shoe polish. Filed by Wizard, Inc., Chicago, Nov. 30, 1936. Claims use since Dec. 10, 1914, on carpet cleaner and metal polish, and since Aug. 9, 1934, on shoe polish.

NOVEX—This in solid letters describing cleaning compound. Filed by Diversey Corp., Chicago, Dec. 9, 1936. Claims use since Oct. 15, 1936.

DONNA LO—This in script describing soapless shampoo. Filed by Donna-Lo Laboratories, St. Louis, Oct. 28, 1936. Claims use since Oct. 1, 1935.

ENDOWMENT FOUNDATION N J —This with sketch of mosquito describing mosquito larvacide. Filed by Endowment Foundation, New Brunswick, N. J., Nov. 9, 1936. Claims use since Oct. 22, 1936.

MOSSCONY BRAND — This on reverse plate describing insecticide and disinfectant. Filed by Mosscony Brand, New York, Nov. 16, 1936. Claims use since Oct. 4, 1934.

SHULTON'S — This in cross-hatched letters describing soaps and shaving cream. Filed by Shulton, Inc., New York, Nov. 7, 1936. Claims use since May, 1934.

KLEX—This in outline letters describing soap. Filed by Colgate-Palmolive-Peet Co., Jersey City, Nov. 19, 1936. Claims use since July 16, 1920.

BORAXO — This on container describing cleanser. Filed by Pacific Coast Borax Co., New York, Nov. 20, 1936. Claims use since August, 1935.

TOGSTAD'S MAGIC — This in solid letters describing water softener. Filed by C. I. Togstad Co., Kokomo, Ind., May 21, 1935. Claims use since September, 1923.

CHAMPION—This in solid letters describing beer pipe cleaner. Filed by Slick-Shine Co., Newark, N. J., Aug. 20, 1936. Claims use since 1900.

TELENE—This in solid letters describing antiseptic and germicide. Filed by Hygienic Service, Inc., New York, Nov. 11, 1936. Claims use since Oct. 26, 1936.

A new practical book on

Soap Manufacture

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"Modern Soap Making"

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"Above all, this book is designed as a practical volume for the practical soapmaker. Its compilation is based on twenty years of actual experience in the soap plant by the authors. Little attention is given to the theories of saponification or detergency. The emphasis is all on the practical handling and refining of raw materials, kettle practice, and other operations in the modern soap factory."

A practical 525 page book on raw materials, manufacture, testing of

TOILET SOAPS	LAUNDRY SOAPS	SHAVING SOAPS
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AND OTHER DETERGENT AND ALLIED PRODUCTS

$7.50 postpaid in the U. S. A.
(Foreign postage 50c extra.)

MAC NAIR-DORLAND COMPANY

254 W. 31st Street *Publishers* **New York**

LYK-NU—This in solid letters describing furniture and auto polish. Filed by Lyk-Nu Co., New York, Sept 21, 1936. Claims use since May 1, 1930.

PROTECTO WAX—This in solid letters describing wax polish. Filed by Florida Distributing Co., West Palm Beach, Fla., Oct. 27, 1936. Claims use since Sept. 21, 1936.

CAR SHINE—This with sketch of group in auto within circle, describing polishing preparation. Filed by Hiram T. Gates, Richmond, Va., Nov. 10, 1936. Claims use since Nov. 5, 1936.

Trade Marks Granted

342,721. Dental Cream. Proctors Products Co., New Haven, Conn. Filed September 29, 1936. Serial No. 383,784. Published November 10, 1936. Class 6.

342,750. Wall Soap Pulverizer and Dispenser. Voorhis-Tiebout Co., Rhinebeck, N. Y. Filed July 29, 1936. Serial No. 381,594. Published November 17, 1936. Class 13.

342,808. Bleach, Germicide, Disinfectant, and Cleanser. Codi Laboratories Co., Pittsburgh. Filed September 28, 1936. Serial No. 383,719. Published November 24, 1936. Class 6.

342,811. Bottle Washing Compound. Diversey Corp., Chicago. Filed September 28, 1936. Serial No. 383,726. Published November 24, 1936. Class 4.

342,812. Shaving Cream. Thoroughbred Pharmacal Co., Chicago. Filed July 27, 1936. Serial No. 381,477. Published November 24, 1936. Class 4.

342,843. Medicated Soap. Stenton Laboratories, Inc., Philadelphia. Filed September 24, 1936. Serial No. 383,602. Published November 24, 1936. Class 4.

342,892. Dentifrices. Jerome W. Ephraim, Inc., New York. Filed January 8, 1936. Serial No. 373,443. Published November 3, 1936. Class 6.

342,899. Cleanser. G. M. Lewis Chemical Co., Canton, Ohio. Filed July 13, 1936. Serial No. 380,954. Published November 17, 1936. Class 4.

342,909. Preparation for Cleaning, Disinfecting and Deodorizing Drain Pipes and Garbage Cans. Saladino Chemical Laboratory, Indianapolis. Filed August 22, 1936. Serial No. 382,490. Published November 24, 1936. Class 6.

342,931. Bottle Washing Compound. Diversey Corp., Chicago. Filed September 28, 1936. Serial No. 383,727. Published November 24, 1936. Class 4.

342,943. Soap. McKesson & Robbins, Inc., Bridgeport and Fairfield, Conn. Filed September 29, 1936. Serial No. 383,777. Published November 17, 1936. Class 4.

342,957. Fluid Dry Cleaning Soap. Sterling Products Co., Easton, Pa. Filed September 16, 1936. Serial No. 383,331. Published November 24, 1936. Class 4.

343,016. Laundry Bleach and Water Softener. Pokadot Chemical Co., Greenville, Pa. Filed May 8, 1936. Serial No. 378,186. Published December 1, 1936. Class 6.

343,054. Rodent and Vermin Poisons. Athelstan Products Co., Minneapolis. Filed August 5, 1936. Serial No. 381,833. Published November 17, 1936. Class 6.

343,056. Preparation to Kill Rats and Mice. Laub Rat-Kiss Co., Pekin, Ill. Filed August 3, 1936. Serial No. 381,896. Published November 10, 1936. Class 6.

343,077. Tooth Paste. Sheffield Co., New London, Conn. Filed August 21, 1936. Serial No. 382,450. Published November 17, 1936. Class 6.

343,098. Insecticides. Napco Products Co., Trenton, N. J. Filed September 3, 1936. Serial No. 382,881. Published November 10, 1936. Class 6.

343,233. Automobile Polish. Pure Oil Co., Chicago. Filed December 23, 1935. Serial No. 372,996. Published December 8, 1936. Class 16.

343,263. Cleansing Pads. Minna I. Reach, Pasadena, Calif. Filed July 15, 1936. Serial No. 381,047. Published December 1, 1936. Class 4.

343,291. Polish. Grace Manufacturing Co., Cincinnati. Filed September 3, 1936. Serial No. 382,898. Published December 1, 1936. Class 16.

343,320. Fluid Dry Cleaning Soap. Sterling Products Co., Easton, Pa. Filed September 30, 1936. Serial No. 383,827. Published December 1, 1936. Class 4.

343,321. Fluid Soap for Use in the Wet Cleaning Process. Sterling Products Co., Easton, Pa. Filed September 30, 1936. Serial No. 383,828. Published December 1, 1936. Class 4.

340,953. Hand Soaps, Shaving Cream, Shaving Sticks, Shaving Powder, etc. Royce Chemical Co., Carlton Hill, N. J. Filed July 11, 1936. Serial No. 380,924. Published September 15, 1936. Class 4.

340,954. General Cleaning Compound. Royce Chemical Co., Carlton Hill, N. J. Filed August 4, 1936. Serial No. 381,819. Published September 15, 1936. Class 4.

340,992. Shaving Cream. Valen's Silklike Products, Lynbrook, N. Y. Filed June 18, 1936. Serial No. 379,913. Published September 15, 1936. Class 4.

341,002. Soap Powder. West Coast Soap Co., Oakland, Calif. Filed July 20, 1936. Serial No. 381,241. Published September 15, 1936. Class 4.

Charabot 120th Anniversary

Charabot & Co., Grasse, France, represented in United States by Ungerer & Co., New York, are this year celebrating their 120th anniversary. Recent changes in the organization bring M. Alexandre Klaguine to the active directorship of affairs of the company. Senator Charabot will shortly make his annual visit to United States, it is stated, and during his stay will make his headquarters at the Ungerer offices.

Chicago Assn. Hears Talk

Sir Charles Morgan-Webb was the guest speaker at the February 25th meeting of the Chicago Drug and Chemical Association held at the Chicago Athletic Association. Sir Charles spoke on the subject of "The Money Revolution."

CRESYLIC ACID
AROMATICS

PHENYL ETHYL ALCOHOL
GERANIOL
CITRONELLOL
ACETOPHENONE
BENZYL ACETATE
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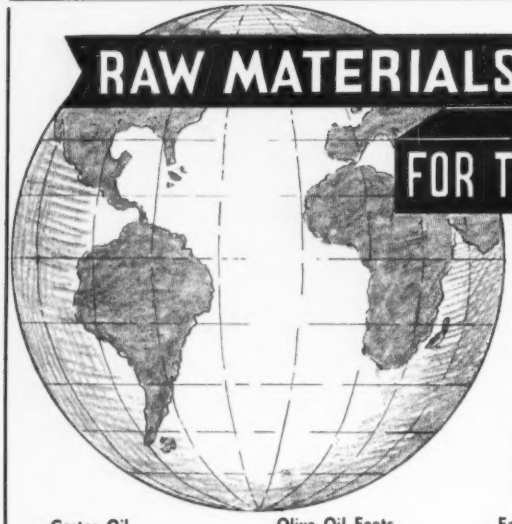

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Castor Oil
Cocoanut Oil
Corn Oil
Cottonseed Oil
Palm Oil
Palm Kernel Oil
Olive Oil

Olive Oil Foots
Peanut Oil
Perilla Oil
Rapeseed Oil
Sesame Oil
Soya Bean Oil
Teaseed Oil

Fatty Acids
Lard Oils
Neatsfoot Oil
Oleo Stearine
Stearic Acid
White Olein

Tallow
Grease
Lanolin
Caustic Soda
Soda Ash
Caustic Potash
Carbonate Potash
Sal Soda

Modified Soda
Silicate Soda
Metasilicate
Tri Sodium Phosphate
Di Sodium Phosphate
Chlorphyll
"CEREPS" Superfatting Agent

WELCH, HOLME & CLARK CO., Inc.
563 GREENWICH STREET, NEW YORK CITY
ESTABLISHED 1838

Raw Material Markets

(As of February 24, 1937)

NEW YORK—Mixed trends characterized the market for soap and sanitary products' raw materials this period, with a varied set of advances and declines in different materials, some of substantial proportions and some merely fractional readjustments.

In the oil and fat market the general tone continued strong due to the shortage of stocks, but there were scattered declines in a number of important oils and fats. Attention in this market was focussed on the coming decision of the U. S. Supreme Court as to the constitutionality of the excise tax on Philippine coconut oil. Two cases challenging the legality of the 3c excise tax are scheduled to come before the Supreme Court early in March. In some cases buyers are reported to be postponing replacements until after the court decision is made public.

The glycerine market continued to advance, with further price increases on all grades this period. There is considerable buying interest being evidenced in this market, but crude producers are not anxious sellers and camparatively few lots are being offered.

In the perfuming materials field the general trend was upward, although scattered declines are reported as well.

OILS AND FATS

Babassu Oil

This market has eased off somewhat, and shipments are being offered for May delivery at 10¾c per pound in tank cars. Considerable interest is being shown on the part of buyers.

Coconut Oil

Copra prices eased off this period, dropping as low as 4¾c per pound at one point. Rather heavy buying at these levels was followed by an advance later in the period, and at the current writing the spot price is more in the neighborhood of 5½c. This advance was followed closely by an advance in coconut oil prices which had also declined earlier in the period. The spot market for Manila tanks is now 9½c per pound.

Palm Oil

Shipment prices on palm and palm kernel oils were dropped by sellers this period, with palm now quoted around 6c per pound and palm kernel around 7¼c. The spot market is nominal, with practically no oil available at the moment.

Olive Oil

Olive oil quotations remain nominal, with uncertainty prevailing as to when additional supplies will be received. The market for olive oil foots advanced sharply this period on reports that Italy is planning to place a duty on exports. Advices from Italy indicate that a duty of .150 lire per quintal has been placed on all olive oil exports to insure that sufficient oil will remain in Italy to take care of the country's normal requirements.

Tallow

Tallow prices covered a wide range this period, with buyers and sellers being unusually far apart in their ideas of price. Sales were reported all the way from 8¾c to 9¼c per pound on city extra, with other offers and bids below and above this range.

PERFUMING MATERIALS

Anise Oil

Anise oil is now available in the neighborhood of 87c to 90c per pound, a drop from the recent higher level.

Cassia Oil

Primary market quotations advanced this period, and the spot market followed, with the level now ranging from $1.00 to $1.05 per pound.

Citronella Oil

A series of declines was noted in the price of citronella oil this period, in keeping with lower primary market quotations. Ceylon oil is now available from 44c to 46c per pound, with Java oil a cent a pound higher.

Geranium Oil

African and Bourbon oil were quoted lower this period, with the Turkish grade reversing the picture by registering a substantial advance.

Palmarosa Oil

A series of advances this period brought the price of palmarosa oil to $2.75 to $3.00 per pound, following similar advances in primary market quotations.

Rosemary Oil

Good demand was shown for rosemary oil this period from the soap trade. Prices have advanced and the ruling quotation now is 60c to 65c per pound for oil in cans.

GLYCERINE

Several further advances this period have brought the price of C.P. and dynamite glycerine up to 29c per pound. Soaplye is quoted around 27c per pound. Production figures for 1936 which have just appeared indicate a total U. S. output of 154,009,598 pounds on an 80 per cent soaplye basis. This is the largest production ever recorded in United States. In addition, approximately 14,000,000 pounds of glycerine were imported during the year.

—— ♦ ——

C.S.A. Names Lichtenberg

Charles Lichtenberg, of Commercial Solvents Corp., New York, has been elected president of the Chemical Salesmen's Association for the coming year, to succeed J. C. Leppart of Columbia Alkali Co., New York. Other new officers are: vice-president, Charles E. Kelly of Hagerty Bros. & Co.; secretary, DeWitt Thompson of Mathieson Alkali

The most • *Amazing* VACATION ever conceived

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Eighteen holes of golf . . . a plunge in the outdoor pool . . . then a ten-minute autogiro flight to Miami Beach, for luncheon at the Roney Plaza Cabaña Sun Club . . . a comfortable jaunt with your friends in a commodious aerocar trailer to the races . . . back to the Cascades for cocktails and music . . . then, maybe, a nap in your luxurious room before going down to dinner, entertainment and dancing in the main dining room . . . ah, it's a merry life at the Miami Biltmore these days! And everybody's here! Surely, there's good factual reason for designating the Miami Biltmore as the

CENTER OF THE WINTERTIME WORLD

Nowhere else in the resort world will you find such accommodations, privileges and facilities for enjoying ALL the fun. At the Miami Biltmore you have not only the refinements of smart living but a complete vacation program to enjoy.

Augmenting the sports and entertainment provided on the hotel estate are the rare privileges of three exclusive sports clubs, upon approval by the membership committee. These clubs are the Miami Biltmore Country Club, Roney Plaza Cabaña Sun Club (Miami Beach) and the Key Largo Anglers Club (on the famous Florida keys). Miami Biltmore guests also have a private transportation system—aerocars running on regular schedules—to take them to all vacation interests in this area, *without extra charge.*

REGULAR ENTERTAINMENT at the

MIAMI BILTMORE
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DINNER DANCE, main dining room . . . two orchestras . . . two floor revues nightly (one Sunday night) . . . superior cuisine . . . every Saturday night, Mardi Gras carnival with champagne dinner.

THE CASCADES, cocktail lounge and bar . . . a cozy retreat with picturesque decor, including aquarium background for the bar with one of the largest collections of tropical fish in the country . . . informal musical entertainment . . . open from 11 a. m. until the jolly wee hours of next day.

WATER CARNIVAL, in the Miami Biltmore Pools . . . every Sunday afternoon at three . . . Olympic aquatic stars in competition, professional swimmers and divers in spectacular exhibitions and 20 vaudeville acts with orchestra.

COCKTAIL DANCES, in the Patio, every Sunday afternoon, following the Water Carnival . . . Maximillian Bergere and orchestra.

For information (name your hobby) and reservations, address hotel direct . . . or New York office: 521 Fifth avenue, suite 1238-41 (Phone MUrray Hill 2-3740) . . . Chicago office: 180 N. Michigan avenue, suite 615.

Raw Material Prices

(As of February 24, 1937)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .11	$ .12½
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, drums	gal.	.73	.75
Low boiling grade	gal.	.78	.80
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls.	gal.	4.14	4.19
Complete Denat., SD 1, drums, ex.	gal.	.32	.37
Alum. Potash lump	lb.	.03¼	.03½
Ammonia Water, 26°, drums, wks.	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bentonite 1	ton	—	16.00
Bentonite 2	ton	—	11.00
Bleaching Powder, drums	100 lb.	2.25	2.60
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
Caustic, see Soda Caustic, Potash Caustic			
L. C. L.	lb.	.07	.08
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.10	.10½
Creosote Oil	gal.	.13	.13½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.05¾	.06¼
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.29	.29½
Dynamite, drums	lb.	.29	.29½
Saponification, drums	lb.	—	.29
Soap, lye, drums	lb.	—	.27
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.07¼	.07½
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.13¼	.14¼
Pine Oil, bbls.	gal.	.59	.64
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.07¼	.09½
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	9.91	11.25
Grade K to N.	bbl.	11.25	11.25
Grade WG and X.	bbl.	11.50	13.25
Wood FF Spot	bbl.	10.87	11.75
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.26	.35
Olive Castile, powder	lb.	.28	.38
Powdered White, Neutral	lb.	.19½	.21½
Olive Oil Foot, bars, 68-70%	lb.	.09	.09½
Green, U. S. P.	lb.	.08	.09½
Tallow Chips, 88%	lb.	.09	.09½
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	1.05
Soda Caustic, cont., wks., solid	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls.	100 lb.	$1.10	$1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls.	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls.	lb.	.19	.20
Sodium Silicate, 40 deg., drum.	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Triethanolamine	lb.	.20	.25
Trisodium Phosphate, bags, bbls.	lb.	.03	.03½
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.20	.22

Oils — Fats — Greases

Babassu, tanks, futures	lb.	—	.10¾
Castor, No. 1, bbls.	lb.	.10¾	.11½
No. 3, bbls.	lb.	.10¼	.11
Coconut			
Manila, tanks, N. Y.	lb.	—	.09½
Tank, Pacific coast, futures	lb.	—	.08½
Cod, Newfoundland, bbls.	gal.	.51	Nom.
Copra, bulk, coast	lb.	—	.0540
Corn tanks, mills	lb.	.10¼	Nom.
Cottonseed, crude, tanks, mill	lb.	—	.09¾
PSY, futures	lb.	.10¾	.11¼
Degras, Amer., bbls.	lb.	.07¾	.08
English, bbls.	lb.	.07¾	.08
Neutral, bbls.	lb.	.11½	.13
Greases, choice white bbls., fob Chicago.	lb.	.08⅞	.10
Yellow	lb.	.08½	.08⅝
House	lb.	.08½	.08⅝
Lard, City	lb.	.12¾	.13
Compound tierces	lb.	.13½	.13¾
Lard Oil,			
Extra, bbls.	lb.	—	.13½
Extra, No. 1, bbls.	lb.	—	.13
No. 2, bbls.	lb.	—	.12½
Linseed, raw, bbls.	lb.	.0990	.1010
Tanks, raw	lb.	.0930	.0950
Boiled, 5 bbls. lots	lb.	.1070	.1090
Menhaden, Crude, tanks, Balt.	gal.	.37	—
Oiticica Oil	lb.	.11¾	.12
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.13½
No. 2, bbls., N. Y.	lb.	—	.13
Olive, denatured, bbls., N. Y.	lb.	1.65	Nom.
Foots, bbls., N. Y.	lb.	.13	Nom.
Palm	lb.	.06	.06¾
Palm Kernel, casks, denatured	lb.	.07¼	Nom.
Peanut, domestic, tanks	lb.	.10¼	Nom.
Rapeseed Oil, denat.	gal.	.85	.90
Red Oil, distilled, bbls.	lb.	.11⅝	.12⅝
Saponified, bbls.	lb.	.11⅝	.12⅝
Tanks	lb.	—	.10¾
Seasame Oil, dms.	lb.	.13¼	Nom.
Soya Bean, domestic tanks, saponified, f.o.b. West	lb.	.11½	Nom.
Stearic Acid,			
Double pressed	lb.	.12½	.13½
Triple pressed, bgs.	lb.	.15¼	.16¼
Stearine, oleo, bbls.	lb.	.10¼	.10½
Sunflower Seed Oil, refd., dms.	lb.	.12¼	Nom.
Tallow, special, f.o.b. plant	lb.	.08⅝	.09⅜
City, ex. loose, f.o.b. plant	lb.	.08¾	.09½
Tallow oils, acidless, tanks, N. Y.	lb.	—	.12⅛
Bbls., c/l N. Y.	lb.	—	.12⅝
Teaseed Oil	lb.	.14½	Nom.
Whale, refined	lb.	.1010	.1030

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Almond, Bitter, U. S. P.	lb.	$2.75	$3.00
Bitter, F. F. P. A.	lb.	3.00	3.25
Sweet, cans	lb.	.80	.85
Anise, cans, U. S. P.	lb.	.87	.92
Bay tins		1.30	1.50
Bergamot, coppers	lb.	3.50	4.00
Artificial	lb.	1.00	1.40
Birch Tar, rect. tins	lb.	.70	.75
Crude, tins	lb.	.14	.17
Bois de Rose, Brazilian	lb.	1.25	1.35
Cayenne	lb.	2.75	3.00
Cade, cans	lb.	.38	.52
Cajeput, native, tins	lb.	.45	.46
Calamus, tins	lb.	3.50	3.75
Camphor, Sassy, drums	lb.	.16	.17
White, drums	lb.	.18	.19
Cananga, native, tins	lb.	1.75	2.25
Rectified, tins	lb.	3.00	3.35
Caraway Seed	lb.	2.10	2.25
Cassia, Redistilled, U. S. P.	lb.	1.00	1.05
Cedar Leaf, tins	lb.	1.00	1.05
Cedar Wood, light, drums	lb.	.22	.28
Citronella, Java, drums	lb.	.45	.47
Citronella, Ceylon, drums	lb.	.44	.46
Clove, U. S. P., tins	lb.	1.20	1.22
Eucalyptus, Austl., U. S. P., cans	lb.	.45	.50
Fennel, U. S. P., tins	lb.	1.05	1.10
Geranium, African, cans	lb.	4.85	5.50
Bourbon, tins	lb.	4.60	5.15
Turkish	lb.	2.55	2.65
Hemlock, tins	lb.	1.05	1.10
Lavender, U. S. P., tins	lb.	2.25	6.00
Spike, Spanish, cans	lb.	1.05	1.10
Lemon, Ital., U. S. P.	lb.	3.75	4.65
Cal.	lb.	3.50	—
Lemongrass, native, cans	lb.	.57	.62
Linaloe, Mex., cases	lb.	1.15	1.20
Nutmeg, U. S. P., tins	lb.	1.20	1.25
Orange, Sweet, W. Ind., tins	lb.	1.95	2.20
Italian cop	lb.	3.50	4.50
Distilled	lb.	—	.90
Cal.	lb.	3.25	—
Origanum, cans, tech	lb.	1.00	1.25
Palmarosa	lb.	2.75	3.00
Patchouli	lb.	5.00	6.00
Pennyroyal, dom.	lb.	1.65	1.75
Imported	lb.	1.60	1.85
Peppermint, nat., cans	lb.	2.25	2.50
Redis., U. S. P., cans	lb.	2.50	2.75
Petitgrain, S. A., tins	lb.	1.20	—
Pine Needle, Siberian	lb.	.85	.90
Rose, Natural	oz.	5.25	22.50
Artificial	oz.	2.00	3.00
Rosemary, Spanish, tins	lb.	.60	.65
drums	lb.	.55	.60
Sandalwood, E. Ind., U. S. P.	lb.	4.80	5.50
Sassafras, U. S. P.	lb.	.75	1.25
Artificial	lb.	.34½	.35½
Spearmint, U. S. P.	lb.	1.75	2.00
Thyme, red, U. S. P.	lb.	.95	1.25
White, U. S. P.	lb.	1.05	1.35
Vetivert, Bourbon	lb.	8.00	18.00
Ylang Ylang, Bourbon	lb.	3.50	6.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.25	$2.25
Amyl Cinnamic Aldehyde	lb.	1.55	2.00
Anethol	lb.	1.10	1.15
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.20	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.00	2.30
Citronellal	lb.	1.10	1.25
Citronellol	lb.	1.90	2.15
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide		.70	1.00
Eucalyptol, U. S. P.	lb.	.60	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	.75	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.00	2.50
Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.25	5.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	1.60	2.55
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.10	2.75
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	4.20	5.00
Ketone	lb.	4.35	5.25
Xylene	lb.	1.25	2.00
Phenylacetaldehyde	lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.	lb.	2.50	3.25
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.00	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.54	.57
Terpineol, C. P., 1,000 lb. drs.	lb	.23	.25
Cans	lb	.27	.30
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.70	1.95
Vanillin, U. S. P.	lb	3.75	4.00
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect Powder, bbls.	lb.	.16	.18
Concentrated Extract			
5 to 1	gal.	1.00	1.10
20 to 1	gal.	3.40	3.50
30 to 1	gal.	5.00	5.15
Derris, powder—4%	lb.	.33	.38
Derris, powder—5%	lb.	.39	.44
Cube, powder—4%	lb.	.23	.28
Cube, powder—5%	lb.	.28	.33

Gums

Arabic, Amb. Sts.	lb.	.10½	.11
White, powdered	lb.	.14	.15
Karaya, powdered No. 1	lb.	.09½	.10
Tragacanth, Aleppo, No. 1	lb.	2.40	2.50
Sorts	lb.	.30	.75

Waxes

Bees, white	lb.	.40	.42
African, bgs.	lb.	.29	.30
Refined, yel.	lb.	.34	.38
Candelilla, bgs.	lb.	.15½	.16½
Carnauba, No. 1	lb.	.45	.46½
No. 2, N. C.	lb.	.38	.40
No. 3, chalky	lb.	.34½	.36
Ceresin, yellow	lb.	.08½	.11
Paraffin ref. 125-130	lb.	.0455	.04¾

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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Soap Flakes and Fibers

THE producers of soap flakes who are not the actual manufacturers of the base soap are at a distinct disadvantage in that they cannot mill the flakes from the warm soap as it leaves the drier. It is a great advantage to be able to produce flakes from soap that has not reached the cold state. There is less risk in a soap that has not cooled of the tiny hard specks in the finished flake that look like soda ash or adulterants. Flakes that have passed through the whole process at a minimum temperature of 28-30° C. are less friable, more transparent and of higher polish than those made from soap that has cooled to 10-15° C.

Some of the older flake mills were constructed to deliver flakes far too large for convenient handling and packing. The smaller the flake, the less breakage and powdering. The ¼ inch flake appears to be the best size for the user as well as the producer. The user will find that they flow better, dissolve more rapidly and show less tendency to mat when placed in hot water. The producer will find them much easier to pack although the bulk is considerably smaller, weight for weight, than the larger flakes, and consequently the carton appears to be of less value for the money.

The base of flake soap is much the same as for toilet soap except that the titre is somewhat lower. About 75 per cent of the fats are animal fats, e.g. 50 per cent beef tallow and 25 per cent lard. The fat charge is completed with 2 per cent of soy bean oil, 2 per cent good-grade rosin and 21 per cent coconut oil. The alkali is caustic soda but it is of advantage to incorporate up to 10 per cent of potash soap (good white soft soap). This produces a less brittle flake of greater transparency and of more rapid solubility than sodium soap alone.

The thickness of the soap is gradually reduced in the rollers to 2 to 3/1000ths of an inch. The adjustment calls for considerable skill on mills of more than three rollers. If there is a slight excess in the feed, the mill will have an undesirable creaming action on the soap, producing that "shortness" that one wishes to avoid. The practice of adding silicate and starch to soap flakes is fast dying out. The extra labor cost involved in mixing, and time and power costs in multiple milling, prove hardly worth the effort. One point that perhaps should be mentioned is that the knife which takes the flakes from the final roller must be kept razor-sharp and perfectly clean to avoid crinkled or ragged flakes.

Soap fibers of needle fineness may be produced either by passing the 74-75 per cent fatty acid soap base through a special machine or through the toilet plodder. The special machine has a pair of grooved rollers which force the soap into a steam-heated compression chamber and thence through a die-plate with innumerable needle holes drilled in it, from which the soap emerges in the form of fine threads. If the plodder is used, a disc of wire gauze is placed behind a plodder die plate which contains tapered holes similar to those in the compression plate of this machine. This plate is used to take the pressure of the plodder thrust which the wire gauze alone would not stand.

It will be found that after about 28 pounds of soap have passed through the gauze, the holes become clogged. These may be disposed of by placing the gauze disc over a lighted gas ring and burning it. The gauze may be used over and over. The resulting soap may be sold for any purpose for which flakes are used. These soap fibers dissolve more quickly than flakes and have the further advantage of not matting when a handful is placed in hot water.

Soap Leaves

Soap leaves are pieces of tissue paper impregnated with good quality toilet soap and either bound into small books or folded with a paper towel and placed in a carton for distribution in automatic delivery machines. The materials are good quality milling base of about 72 per cent fatty acids, denatured alcohol,

perfume, and tissue paper. Place 50 gallons of alcohol in a suitable tank, turn on the steam and add 100 pounds of soap base. When the soap is dissolved and the contents of the tank are simmering gently, with no skin on the surface, it is ready for dipping, and one or two pounds of perfume may be added.

The roll of paper is fixed on a free-running spindle at the far side of the tank, and a roller, also free-running, is fitted inside and just clearing the steam coil at the bottom of the tank. A pair of rubber rollers of the domestic wringer type draw the paper through the solution at a uniform rate. The saturated paper is hung in festoons over laths as it issues from the rollers and remains there until dry enough to cut. Almost immediately after the sheet has left the solution it has cooled to solidity and may be handled without fear of disturbing the surface. W. J. W. Fisher. *Soap, Perfumery and Cosmetics* **9,** 873-6 (1936).

Autoxidation of Oleic Acid

The course of oxidation of oleic acid, methyl oleate and oleyl alcohol was studied by an apparatus and methods which permit the simultaneous measurement of the oxygen absorbed and of its distribution among the transitory and final products of oxidation, including water, carbon dioxide, and carboxyl, hydroxyl, peroxide, and aldehyde compounds.

In the initial reactions at the double bond, each molecule of methyl oleate and oleic acid absorbs approximately four, and each molecule of oleyl alcohol approximately five, atoms of oxygen. Simultaneously each of the three compounds loses one molecule of water. The peroxide level in the early stages of oxidation is higher in oleyl alcohol and methyl oleate than in oleic acid; conversely, the hydroxyl content of oxidizing oleic acid is higher than that of methyl oleate or the extra hydroxyl of oleyl alcohol.

The destruction of the double bond occurs faster than would be expected if the reaction proceeded at a unimolecular rate, presumable because of secondary reactions, which become more prominent as the oxidation progresses. L. A. Hamilton and H. S. Olcott. *Ind. Eng. Chem.* **29,** 217-23 (1937).

Liquid Shampoos

Liquid shampoos may be prepared either by saponifying suitable fats with caustic potash and diluting the resulting soap with distilled water, or by dissolving soft soap of some type in the water, together with alcohol in some cases. The first method demands a knowledge of the mechanism of saponification, and as the resulting soap must be as nearly neutral as possible, it is by no means an easy matter for the inexperienced operator. Coconut oil is usually the main fatty ingredient owing to the fact that the potash soap derived from it, when properly made, gives a clear solution in water. However, coconut oil soap tends to irritate the skin, gives a quick lather which does not last, and has a characteristic odor. On the other hand, it is easy to saponify, and if a good grade is used, there is not much precipitation after it has stood for the first few days. The soap has the advantage of lathering well in salt water and hard water.

From the point of view of the scalp, probably the best liquid shampoos are made from olive oil, although the difficulties attendant on the saponification of this oil are considerable, and it is much safer for the average shampoo seller to purchase the soft soap already made. Excellent soaps can be made from a combination of coconut and olive oil, the olive oil amounting to not less than 25 per cent of the coconut oil. Other oils such as cottonseed, peach kernel, palm and peanut oils have also been used, largely on account of price. The oils should be as odorless as possible and should contain very little free fatty acid.

To make the liquid soap, the oil is usually heated to about 50° C. and the calculated amount of caustic alkali in water at about 28° Be., is added. The whole is heated and kept at about 80° C. until saponification is complete. It is then kept at a temperature not lower than 16° C. for 24 hours, and the rest of the water added, together with any other products such as potassium carbonate, saponin, potassium chlorate, or sugar, which may be included to improve the clarity of the solution. After standing for a few days, it is usually filtered over kieselguhr.

A much easier method is to buy a pure coconut oil soft soap, or olive oil soft soap (all of which usually contain about 45 per cent fatty acids), and dissolve them in distilled water with a little alcohol. The finished shampoos rarely contain more than 15 per cent of fatty acids. The only point to be watched is that so-called green olive oil soft soap really has been made solely from olive oil, as many of the green olive oil soft soaps on the market today contain little true olive oil soap. Genuine olive oil soft soap is not deep green in color.

Colorimetric Acidity of Oils

Fatty acids dissolve in alcohol but their glycerides do not, with the exception of castor oil and oils related to it, which give turbidities on shaking. These do not interfere with the proposed method.

To prepare suitable standards, dissolve 0.1 gram of pure oleic acid in 10 cc. of ethyl alcohol or in 10 grams of isoamyl alcohol. As indicator use 0.02 grams of bromocresol in 100 cc. of alcohol and add 0.1 *N* solution hydroxide in alcoholic solution until the color of the solution is blue-violet. To 5 cc. of alcohol add 5 drops of indicator solution and suitable portions of the oleic acid solution, to make a series of 14 comparison standards containing 0.00 to 0.644 mg. of oleic acid, each differing from its nearest neighbor by 0.0495 mg. By adding quantities of the sample oil to 5 cc. of indicator solution, data for a colorimetric determination can be obtained.

The acid value (SZ) can be computed by the formula

$$SZ = NnK/ (v \times 0.92)$$

where N is the number of the com-

parison solution in the scale, n is the difference in the oleic acid value of two neighboring standards, K is the coefficient for changing oleic acid to KOH, v is the volume of the oil used and 0.92 is the average density of the fat. V. V. Ilarionov and I. S. Kogan. *Mikrochemie* **21,** 11-16 (1936).

Sampling Oil from Ships

For sampling oil in tank ships a 2 liter sampler weighted with lead at the bottom and having 2 openings at the top is used. One of the openings is for a thermometer. Samples are taken at different depths and the temperature at the various depths is noted. The sp. gr. of the oil is measured at the average temperature. To test for a residue of water, a paper dyed with a water-soluble dye is attached to a measuring stick. The height of water at the bottom of the tank may be noted from the extent of the discoloration. The weight of oil is computed from the volume which has been corrected for water and the sp. gr. at the average temperature of the oil. F. Wittka. *Allgem. Oel- u. Fett-Ztg.* **33,** 470-8 (1936).

Detergent Colloidal Starch

Colloidal starch solutions are claimed to have special detergent power, according to L. Zakarias, a French chemist who first discussed the subject at last year's International Congress of Chemistry. Certain types of starch suspensions modify the surface tension of oils and fats but do not form emulsions with them.

The colloidal starch solutions alone are not very efficient as practical cleansing agents, but become so when treated with about 2 per cent of their weight of soda ash. When such a solution is used for degreasing metals, the free alkali is progressively exhausted and requires periodic renewal. The main mass of the starch solution deteriorates only very slowly, since it is not contaminated by the presence of the emulsified fats produced. It is claimed to be superior in degreasing action to both saponaceous detergents and organic solvents. The cleaned metal is left with a very thin but corrosion-protective film of metallic soap. The process has been tried successively in automobile repair shops, galvanizing plants, etc.

The new agent is found to be equally suitable in the cleaning of linoleum and of glass bottles. Laundry trials have also been favorable. Numerous fundamental problems still remain unsolved. *Chem. Trade J. and Chem. Engineer* **100,** 24 (1937).

Oil from Used Earth

In the extraction of oil from used bleaching earth an optimum ratio of solvent to residue can be calculated by experiment. In tests, 5,000 liters of benzine were used in a rotary extractor with 2,000, 1,200 and 1,000 kilograms, respectively, of bleaching earth containing 30 per cent of oil. Each 1,000 kg. of original residue retained 500 liters of solvent. The solvent-free residues after the first extraction contained respectively 7.9, 5.1 and 4.1 per cent of oil. A second extraction with the same amount of solvent yielded a residue which when freed of solvent, contained 1 to 1.4 per cent of oil. Ilona Taussky. *Ole, Fette, Wachse, Seife, Kosmetik* **1936,** No. 14, 1-2.

Lime-Soap Dispersion

A cleansing and scouring agent which has a powerful dispersing action on lime soaps is obtained by acylating primary or secondary alkoxyarylamine sulfonic acids of the benzene series, with oleic acid. As an example, 4-amino-1-ethoxybenzene-2-sulfonic acid is stirred in caustic soda solution with the gradual addition of oleic acid chloride. The temperature is kept below 15° C. The jelly-like paste so obtained is neutralized. The aqueous solution of the product is stable to hydrolysis by mineral acids in addition to its dispersing action on lime soaps. Imperial Chemical Industries, Ltd., and Alfred Wm. Baldwin. British Patent No. 452,139.

Oat Flour as an Antioxidant

Cereal flours act as antioxidants for fats and oils, oat flour appearing to be the most suitable. If the flour is intimately stirred into the melted fat for a short time and then filtered out, its antioxidant action is greater than if it is merely added to the fat and allowed to remain in it. Fredus N. Peters, Jr. and Sidney Musher. *Ind. Eng. Chem.* **29,** 146-51 (1937).

Emulsifying Agent in Naphtha

An emulsifying agent for dispersing greasy material in solvent naphtha consists of a mixture of benzyl alcohol and dissolved alkylated aromatic sulfonic acids or their salts. An example is the solution of naphthalenesulfonic acid in water followed by its addition to benzyl alcohol. Chemische Fabrik Pott & Co. G.m.b.H. German Patent No. 633,517.

Analysis of Sulfated Oils

Inaccuracies in the xylene distillation method for water led to the conclusion that the heptane distillation method of Tate and Warren is preferable. Total oily matter is determined by extraction with carbon tetrachloride from acid solution, as follows: To 50 cc. of carbon tetrachloride, 100 cc. of water and 50 cc. of hydrochloric acid (sp. gr. 1.19) in a separatory funnel, add 5 grams of sulfated oil, shake vigorously at once, let stand 30 minutes, separate the carbon tetrachloride layer, evaporate the solvent and weigh. Analyses of representative oils show that a second extraction recovers less than 1 per cent of oily matter and a third extraction recovers nothing. Carbon tetrachloride does not extract sulfuric acid from the aqueous layer, and does extract all organically combined sulfate. The percentage of oily matter directly determined agrees well with that by difference, i.e. 100 per cent minus percentage of water minus percentage of ash. D. Burton and G. F. Robertshaw. *J. Intern. Soc. Leather Trades' Chem.* **20,** 495-8 (1936).

Products and Processes

Saddle Soap

There are various methods for the preparation of saddle soap, one of which is as follows: Melt together 14 parts of palm oil and 1 part of light colored rosin. Saponify the melted fat by the half-boiled process with 7 parts of caustic soda solution, 38° Be. Then stir in 35-40 parts of water, 5 parts of lime-free glycerine, sp. gr. 1.23-1.24, and 0.2 part of talcum. Run into forms to set. Many saddle soaps contain 1 to 2 per cent of beeswax, especially American products. *Seifensieder-Ztg.* **63,** 1001 (1936).

Sulfonated Castor Oil

Sulfonated castor oil is the ideal material for making water-soluble bases for incorporation in theater and other sprays. It will emulsify from 25 to 50 per cent of any perfume blend of essential oils and synthetics, providing an excess of solids such as the artificial musks and heliotropin is avoided. A normal proportion of such fixatives will not cause any precipitation. In the case of a 20 to 25 per cent blend, an ordinary 50 per cent grade of sulfonated castor oil will take up to 20 per cent of formalin.

When it is desired to avoid alkalinity in the finished oil, as when it is used as a base for hair shampoos or as an emolient in brushless shaving creams or in hand cleansers, it can be finished with ammonia instead of using all caustic alkali. *Soap, Perfumery and Cosmetics* **9,** 893 (1936).

Ammonia Saponification

Fatty acids only can be saponified with ammonia. If these contain any neutral fat, the latter will fail to react. In order to calculate the amount of ammonia to be used with a known amount of fatty acid, it is necessary to know the neutralization value of the fatty acid and also the exact concentration of the ammonia in terms of NH_3. Ammonia water usually has a specific gravity of 0.91 and contains 25 per cent of NH_3. When calculating the amount of alkali, it is to be remembered that 56 parts of caustic potash are equivalent to 17 parts of NH_3. For example, if the fatty acid has a neutralization value of 200, then 100 parts of fatty acid require for saponification 20 parts of caustic potash or 6.07 parts of 100 per cent NH_3. Since the ammonia water contains 25 per cent NH_3, 6.07 x 4 or 24.28 parts of ammonia water are required. *Seifensieder-Ztg.* **63,** 1023 (1936).

Thickening Oils

Either vegetable or mineral oils may be thickened or solidified by adding 25-45 pounds of dehydrated soap, free from resin and wool fatty acids, to each ton of oil, heating to 295° C. and allowing to cool. James K. Drysdale. British Patent No. 451,988.

Deacidifying Oils and Fats

In allowing alkali-coated or alkaline earth-coated heavy particles to settle through a body of oil or melted fat in order to deacidify it, the particles are sprinkled uniformly on the surface, e.g., by means of a gauze or a sieve. The process may be repeated and the liquid may be kept in motion by passing an inert gas such as nitrogen, carbon dioxide or hydrogen through it. Gregory Leot. British Patent No. 451,730.

Hydrogenated Castor Oil

Castor oil having a saponification number of 181 and a Wijs iodine number of 86 was hydrogenated by means of a nickel catalyst. The iodine number was determined at various stages of hydrogenation by the Wijs method and the pyridine sulfate dibromide method. The value increased with increasing reaction period but did not show any definite trend. This is believed to be due to the presence of the glyceride of 12-hydroxystearic acid in the hydrogenated product, which absorbs halogens by substitution. Yoshiyuki Toyama and Tokuzo Ishikawa. *J. Soc. Chem. Ind., Japan* **39,** Suppl. binding 300-2 (1936).

Enamel Cleaner

Enamelled surfaces are not readily attacked, so that a suitable cleaner may contain some abrasive. A formula is as follows: 10 parts of soap powder, 15 parts of calcined soda ash, 5 parts of sodium metaphosphate and 70 parts of fine pumice. *Seifensieder-Ztg.* **63,** 1002 (1936).

Washing Agents

Unsaturated oils or fats are treated at about 20-40° C. with an organic derivative of sulfuric acid, such as butyl acid sulfate or methyl sulfate in the presence of a condensing agent like aluminum chloride. The resulting detergent product is water-soluble. Chem. Fab. R. Baumheier A.-G. German Patent No. 636,-136.

Sulfonated Oil Process

One mol. of phthalic anhydride is heated to 140-180° C. with 1-2 mol. of castor oil, and the product sulfonated with about an equal weight of concentrated sulfuric acid at 10° C. The alkali salts of the products are stable to calcium and magnesium salts and are useful as wetting agents. A. Schmitz. German Patent No. 636,193.

Alkali Degreasing of Metal

Alkali baths depend for their degreasing and cleaning efficiency on the fulfillment of four main requirements: First, high wetting and penetrative power, which in turn depends on the lowering of interfacial tension between the dirt particles, the oil and the metal; second, high emulsifying power, which is essential when dealing with mineral oils which cannot be saponified in the ordinary way; third, the ability to maintain solid particles of dirt in suspension; and fourth, ease of rinsing. Soap is

the cheapest and most economical material for ensuring the fulfilment of the first three of these conditions. Trisodium phosphate is commonly added to alkaline cleaning mixtures for ease of rinsing. In general, mixtures of alkalies such as caustic soda, soda ash, sodium silicate, sodium phosphate, and soap will satisfy the above conditions for the type of cleaning required prior to vitreous enamelling. Cleaning efficiency is not directly proportional to the strength of the alkaline solution. The most useful range of strengths is from 1 to 4 per cent.

The dependence of uniformly efficient cleaning upon the fulfilment of each one of the above factors is the chief disadvantage of alkali cleaning, but no other process will remove soap lubricant so effectively from soap spun work. N. R. Hood. *Chemistry and Industry* **56,** 88 (1937).

◆

pH Values of Alkalies

The following pH values for various alkalies are of interest:

Substance (Concentration 0.2%)	pH at 20° C.
Sodium hydroxide	12.69
Sodium silicate	11.94
Trisodium phosphate	11.67
Sodium carbonate	11.17
Sodium carbonate (commercial)	11.12
Borax	9.15
Sodium bicarbonate	8.43

Bicarbonate runs practically constant through a fairly wide range of concentrations, e.g.:

Per Cent $NaHCO_3$	pH
0.05	8.45
0.2	8.43
0.5	8.41
2.0	8.39

Textile Colorist **59,** 52 (1937).

◆

Foam Producers

Foam baths are said to be much in vogue in Great Britain. Soap alone is not satisfactory. The thick foam desired is more readily obtained with preparations containing saponin, as well as fatty alcohol sulfates, and in particular sapamines. The latter have remarkable foam-producing properties, detectable even at a dilution of 1:2,000,000. *Perfumery & Essential Oil Rec.* **28,** 37-8 (1937).

Superfatted Soap

Superfatted soaps are prepared by heating soap and then adding esters of lower aliphatic or hydroaromatic hydroxycarboxylic acids and higher aliphatic hydroxy compounds of not more than 14 carbon atoms, e.g., such a washing composition may contain soap 44, soda 22, sodium perborate 10 and water 24 per cent, which is heated and treated with a 3 per cent addition of the dodecyl ester of lactic acid. Henkel & Cie. G.m.b.H. German Patent No. 633,871.

◆

Sunflower Oil in Soap

Sunflower seed oil gives a pale yellow soap which is not very hard. The soap foams well. Combined with solid fats, the oil gives a smooth, plastic curd soap. It can be used in amounts of 10-15 per cent in soap stock for the production of milled toilet soap. *Seifensieder-Ztg.* **63,** 963 (1936).

◆

Sulfonated Ketones

Cleansing agents are made by sulfonating aliphatic-aromatic ketones such as laurophenone. This type of ketone is prepared by condensing higher fatty acids with aromatic hydrocarbons and reducing the ketones by means of hydrogen and a catalyst. I. G. Farbenind. A-G. French Patent No. 801,199.

◆

Soy Bean Oil Extraction

Continuous solvent extraction of soy bean oil is more satisfactory a method of obtaining the oil than pressing, and leads to better quality products. Trichloroethylene should not be used as the solvent, as it leaves the meal unsuited for cattle food. A gasoline-type solvent having an evenly increasing boiling point is most suitable. W. E. Meyerweissflog. *Oil & Soap* **14,** 10-14 (1937).

◆

Avoiding Hard Water Deposits

In washing textile materials in hard water with washing agents stable to such water, precipitates or deposits of inorganic metal salts are avoided or removed by adding to the washing liquid a solution of a mixture of a water-soluble salt of phosphoric acid and a water-soluble salt of a polymeric carboxylic acid. Examples are trisodium phosphate and sodium polyacrylate mixed with the sodium salt of oleic acid methyl tauride; also disodium phosphate and ammonium polystyrene-maleate mixed with the sodium salt of the sulfuric acid ester of lauryl alcohol. I. G. Farbenindustrie A.-G. British Patent No. 451,342.

◆

Sulfite Lye for Soap

Crude sulfite cellulose lye is treated in the presence of calcium chloride in a colloid mill, or by heat and pressure. It is then neutralized with an acid to remove calcium oxide and the precipitate removed by centrifuging or filtering. The pure lye thus obtained is oxidized by ozone or hydrogen peroxide, is concentrated under vacuum to 30-50 per cent and used in the ordinary manner for the manufacture of soap. Hermann Plauson and Karl Braun. French Patent No. 801,584.

◆

Hydrogenated Tea Seed Oil

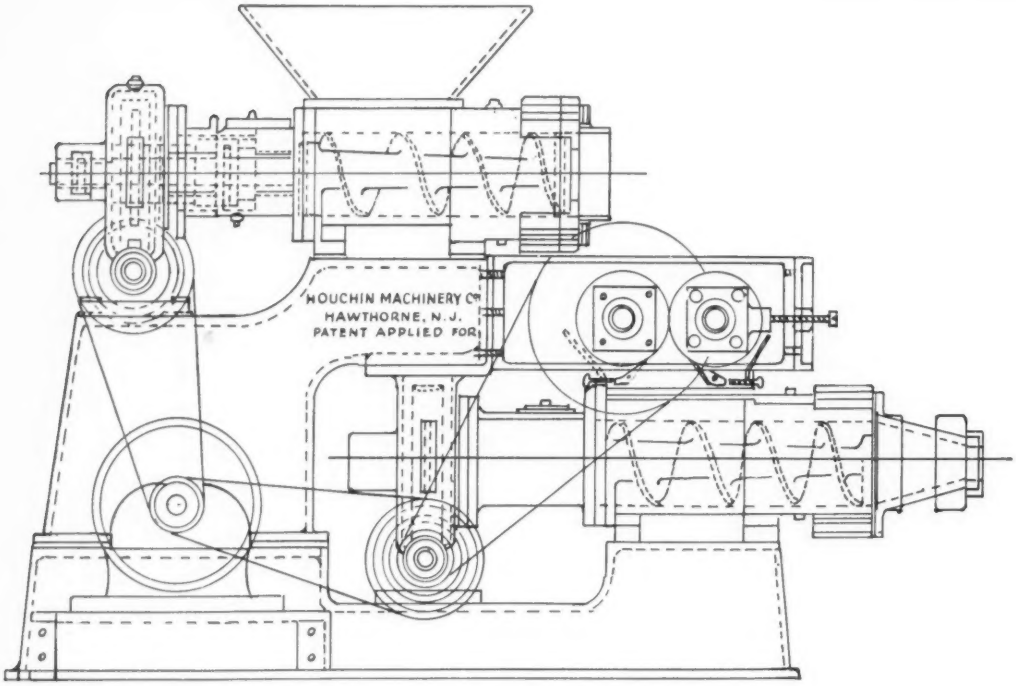
Tea seed oil, purified and treated with cupper hydrate, is readily hydrogenated in the presence of a nickel catalyst containing 75 per cent nickel and 25 per cent copper. The solid product thus obtained is a hard mass with a solidification point of about 44.5° C. It possesses excellent odor. Hung-Yuan Chang and Shun-Hsu Wang. *J. Chem. Eng. China* 1, 136-7.

◆

Selective Adsorption of Carbons

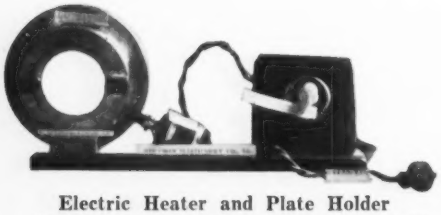
Activated carbons vary in their adsorptive selectivity for impurities present in oil. Experiments with 9 different common commercial brands showed that three of these were able to remove compounds responsible for a positive Kreis test in cottonseed oil, while the remaining 6 failed to do so. In some cases treatment of the oil with specified carbons actually caused the Kreis test to develop with increased intensity. J. P. Harris and W. A. Welch. *Oil & Soap* **14,** 3-5 (1937).

HOUCHIN MACHINERY CO., INC. HAWTHORNE, N. J.



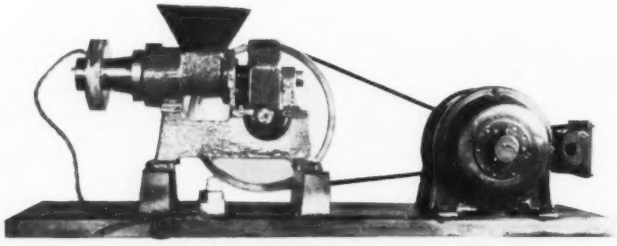
COMBINATION PLODDERS
With Double Head and Milling Attachment With Motor

Soap passing through the first time produces ribbons of soap. Second passing produces a fine finished, well compressed bar of Soap. For the second passing, remove Short Head on Second Plodder, bring Long Finishing Head in place. This Head is fitted with our Electric Heater and Plate Holder. A small stream of water passing through Plodder Cylinders and Rolls of Mill keeps the Soap cool, preventing the Soap from blistering. There is no dropping of Soap. The machine is very easily cleaned. It is excellent for short runs of Soap and saves Horse-Power.



Electric Heater and Plate Holder

By using this unit instead of steam, gas or lamp a uniform heat can be maintained. No more blistered soap. Made to fit all Plodders.



Laboratory Plodder, complete with Motor, Electric Heater, and Plate Holder.

Soap Analysis

In a detailed report of the Committee on Analysis of Soaps and Soap Products of the American Chemical Society, exact methods of sampling and analyses are given. Directions are included for the determination of moisture, matter insoluble in alcohol, free alkali or free acid, combined alkali, total anhydrous soap, chloride, unsaponifiable matter, fatty and rosin acids, titer test, acid number of fatty acids, silicates, carbonates, phosphates, sulfates, glycerine, sugar and starch, and volatile hydrocarbons. F. W. Smither, R. E. Divine, C. P. Long, M. L. Sheely, H. P. Trevithick and P. H. Walker, *Ind. Eng. Chem., Anal. Ed.* **9,** 2-8 (1937).

Iodine Number Comparison

Determination of iodine number on the same oils by the methods of Hübl, Hanus, Wijs and Kaufmann shows that the method of Hübl takes too long a time for the determination on highly unsaturated oils. The Wijs method gives the highest values, that is, the most rapid substitution. For this reason the method should be used only with careful standardization of conditions. The methods of Hanus and Kaufmann give results which agree fairly well with one another under the same conditions. The latter gives less change in value when the period of reaction is lengthened. The values by the Kaufmann method are relatively constant after 30 minutes for oils of fairly low iodine number, and after 45 minutes for oils of high iodine number. N. N. Godbole. *Fette und Seifen* **43,** 155 (1936).

Melting Point of Fats

In this method a regulated pressure is used to move the sample as soon as it softens. A 50 cc. beaker, with a wire loop inserted for manual stirring, was used as the water bath. The capillary tubes were about 1¾ inches long, 35-50 thousandths inch in diameter, with a wall thickness of 5-8 thousandths. These are easily made by heating a short section of ½ inch tubing until very soft and then drawing out quickly to the full reach of the operator. The short lengths of tubes for use are left open at both ends.

To fill the tube, the fat or wax is placed in a clean crucible and heated until just melted. When the end of one of the capillary tubes is touched momentarily to the surface of the melted sample, a column of fat 1-8 to 3-8 inch long is drawn into the opening and is allowed to solidify there. The tube is then wiped clean and is attached to the thermometer in such a way that the thermometer bulb and cylinder of fat are as close as possible.

The thermometer and attached tube are then inserted in the water so that the top surface of the fat column is exactly ½ inch below the surface level of the water. In this way a hydrostatic pressure, essentially equivalent to ½ inch of water, is brought to act on the lower surface of the fat, and as soon as it has softened sufficiently to loosen from the glass tube it rises to the surface level of the water in the beaker. This rise ordinarily occurs within 0.1-0.2° temperature interval and a reading taken with this movement as the end-point is easily reproduced and sharper than a gradually developing transparency.

The temperature rise should not be over 1-2° per minute from within 10° of the expected melting point. Only the pressure on the sample and the rate of heating appear to be at all critical. The method has been found highly satisfactory for control purposes.

Obviously the melting point taken in this way does not agree with that determined by conventional methods. However the similar determination on crystalline organic materials is an end-point taken when the material first flows, although it may require a rise of another degree or more to render it perfectly transparent. General acceptance of this method would thus bring the two types of determination more nearly to a common, and to a more theoretically correct, basis. J. A. Scarrow. *Canadian Chem. & Met.* **20,** 305-6 (1936).

Shaving Composition

A shaving composition contains a mixture of an oxidizing agent, preferably magnesium oxide, with a filler and a binder. Preferably a water-soluble filler such as lactose and a water-absorbing filler such as magnesium carbonate, are used together. The whole is compressed into pieces having a nonporous surface. Victor Dzialoschinsky. German Patent No. 636,097.

Liquid Shaving Cream

A liquid shaving cream is made by mixing coconut oil soap and potash lye, then adding lyes of higher concentration and a neutral liquid to reduce the consistency. Francisco Betrian-Bayo. French Patent No. 801,365.

Glycerine in Spent Lyes

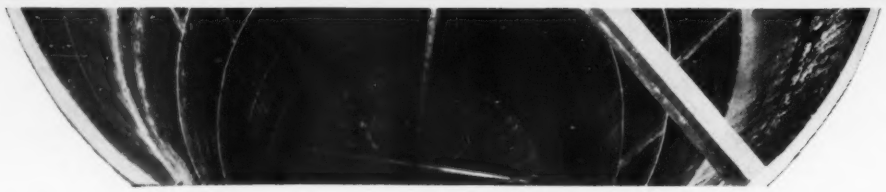
The dichromate method for determining glycerine in soaps and spent lyes is modified by the use of diphenylamine as an internal indicator. This indicator gives a very sharp end point, which facilitates titration. By adding a few cc. of a phosphoric-sulfuric acid mixture to the standard ferrous ammonium sulfate solution, interference with the end point caused by the yellow color of ferric chloride is avoided. E. Randa. *Oil & Soap* **14,** 7-10 (1937).

Oil in Seed Pulps

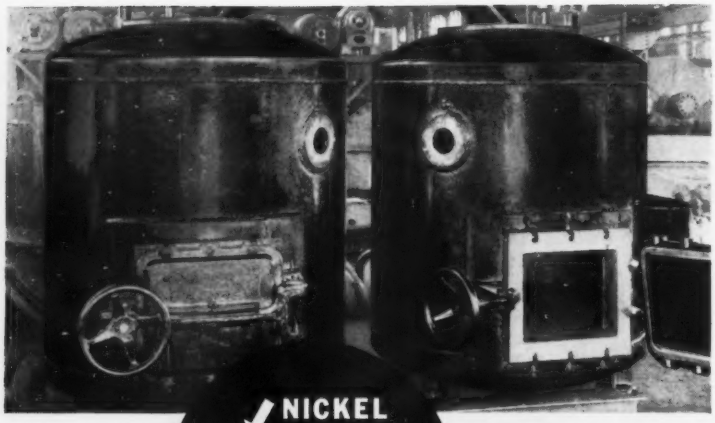
The oil in seed pulps is bound by adsorptive forces to surfaces which are essentially hydrophilic. For this reason, a major part of the adsorbed oil can be displaced from the surface by selective adsorption of water. Heat aids in freeing the oil from the pulp by lowering the viscosity and surface tension of the former and by weakening the forces binding the oil to the gel surfaces. Heat also denaturizes protein in the presence of water, but this effect is unfavorable to oil production as the surface of the protein becomes more lyophilic and more hydrophobic when denatured. A. M. Goldovskii. *Fettchem. Umschau* **43,** 57-64, 84 (1936).

● *Large Nickel-Clad Steel soap boiling kettle, 16 ft. in diameter by 45 ft. deep, fabricated by welding by Littleford Brothers, Cincinnati, Ohio. All auxiliary equipment is Pure Nickel.*

Every job shown is WELDED



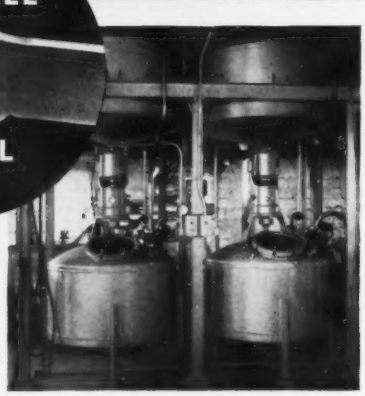
NICKEL-CLAD STEEL



● *Salt boxes welded from Nickel-Clad Steel and used in conjunction with Nickel-Clad Steel glycerin evaporator built by Swenson Evaporator Co., Harvey, Illinois.*

● (ABOVE) *Cross-section of welded Nickel-Clad Steel joint. This permanently bonded by-metal does not separate under any stress of fabrication. Nickel cladding can be either 10%, 15% or 20% the total thickness.*

● (RIGHT) *Shaving soap mixing equipment, fabricated by welding from Nickel-Clad Steel by Theodore Walter, Jr., Newark, New Jersey.*



MUCH of your heavy equipment can best be fabricated by welding. And there's one big advantage to welding Nickel-Clad Steel:

An advantage that ties right in with the reasons you select this bi-metal. You want its Nickel surface because it doesn't rust, doesn't corrode, and keeps pure soap pure.

Weld Nickel-Clad Steel, and your welds offer all the strength, all the corrosion resistance you pay for when you buy Pure Nickel. Offer it too, with no need for annealing after welding.

Every piece of equipment shown here turns out pure soap products for some cost-wise maker. Every item has to resist corrosion from salt, caustic, fatty acids. Every one has welds that stand this severe service.

Your first step towards purity at low cost in your next equipment comes when you write for the free booklets: "Nickel and Monel in the Manufacture of Soap and Related Products"—"Methods for the Fabrication of Nickel-Clad Steel Plate" and "Lukens Nickel-Clad Steel".

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL ST., NEW YORK, N. Y.

Potash Soap Costs

(*From Page* 35)

of their true costs! This is the substance of most suggestions.

A. "The main difficulty in the potash soap business are the thousands of people in it who have no conception of costs of merchandise. The fact that it does not take a great deal of money to go into business, enables backyard organizations to sell at any price that is above cost, and make a few dollars a week. There seems hardly any possibility of clarifying a situation of this type. In most standard businesses it requires an organization and investment. However, if all the people in the business could be brought into a trade Association, and their problems frankly discussed in sectional meetings, a slow process of education might be helpful."

B. "The market is more demoralized at this time than it ever was. Some of the large soap companies will sell five gallons of liquid soap to a consumer at practically the jobbers' price, so it makes it very difficult for those concerns specializing in selling direct to get a price that will enable the salesmen to make the usual commission and make a satisfactory living. A man may have to go around all day before he picks up a new customer for five or ten gallons of liquid soap, so it can easily be imagined that he must be able to make more than a few pennies on a gallon to get by."

C. "If the manufacturer would study his costs and insist on a fair margin of profit, and produce high grade merchandise, the writer is confident that there will be no necessity for cut-throat competition."

D. "We believe the above comments should cover all we have to say at the present time, but will be only too glad to cooperate to stabilize prices."

E. "We have no additional comments which could help clarify the situation. Discussion of this subject should follow the publication of the various expressions received by you through your questionnaire."

F. "We believe that in the publication of this particular article you are going to start a lot of discussion which may be adverse or otherwise. We naturally have a lot of thoughts on this matter but we prefer not to go into any great detail on this because of the peculiar situation that we are in. We do not believe that you will ever be able to prevent cut-throat competition amongst the jobbers or cut-throat competition amongst the resellers. However, a good article written on a general editorial in simple language should go a long way in helping to make some of these fellows realize that they are just fooling themselves."

Fatty Acids from Pine

(*From Page* 33)

plasticizers, core binder, lime compound in the manufacture of mastics, tinning and galvanizing fluxes.

In general, the uses that have been developed for the distilled tall oil arise from the fact that it is a fluid blend having many of the characteristics of unsaturated fatty acids. For practical purposes it is most frequently offered as a substitute for red oil. In other cases, it is offered as a substitute for semi-drying oils, though it is acid in character. In view of the recent development of tall oil in this country, its present uses can hardly be considered indicative of its possible uses, as a good many anticipated uses are reported still in the laboratory stage.

Future Possibilities

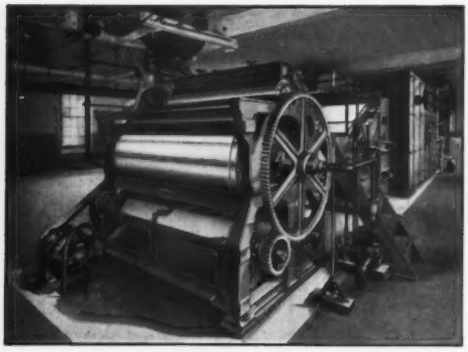
WHEN it is considered that in the southern states, the production capacity of mills making paper pulp from pine wood will exceed 2,000,000 tons this year, it would appear from available data that 60,000,000 lbs. of crude tall oil should be available from this tonnage alone. When it is considered further that the increasing production of pulp from pine wood with the subsequent improvements in recovery processes, it is not unreasonable to expect the production of crude tall oil to run from 150,000,000 to 200,000,000 pounds annually. Now, if the world is to continue to be faced with a shortage of oils and fats,—and the steadily increasing consumption of fats for edible purposes all over the world might point in this direction,—the availability of 100,000 tons per year of an additional by-product fatty acid suitable for certain types of soap manufacture and other technical uses, should be of vital importance to several American industries. When it is appreciated that this additional fatty acid production, a by-product of the paper and pulp industry, will be fairly constant year in and year out, a new factor is introduced in considering the future market for technical fats.

The American soap industry uses annually about 750,000 tons of all kinds of fats, oils, and fatty acids. Other technical uses of fatty raw materials,—that is miscellaneous uses exclusive of paint, printing ink, and linoleum,—approximate 125,000 tons per year. Thus, it is apparent that a steady, regular production each year of 100,000 tons of American tall oil is not to be ignored in its effects on the market for technical fats. Its mere availability, regardless of price, will have an effect on the market for other fatty acids as it is introduced into new channels of industry.

The opportunities for fatty acid consumers which lie in the future of American tall oil are several: (1) Low price; (2) Constant supply,—by-product of increasing manufacture of pulp and paper from pine wood; (3) Dependability of quality and uniformity,—production in hands of large units in an industry established for many years, an industry under strict chemical control and developed by years of extensive chemical research; (4) Wholly manufactured in the United States, avoiding excise taxes and import duties. In the present market situation in oils and fats, tall oil appears to call for investigation as a low priced fatty acid with previously unrecognized possibilities.

Clark-Dunn Mfg. Co., St. Louis, shoe polishes, has recently discontinued operations.

PRODUCING THE PERFECT CHIP FOR ALL SOAP MAKING NEEDS



● New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. I.

● The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter, quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

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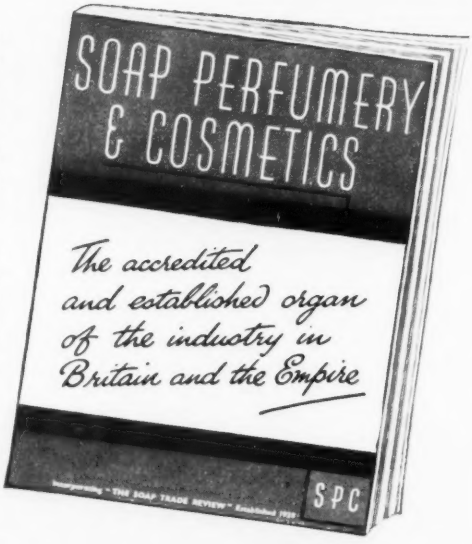

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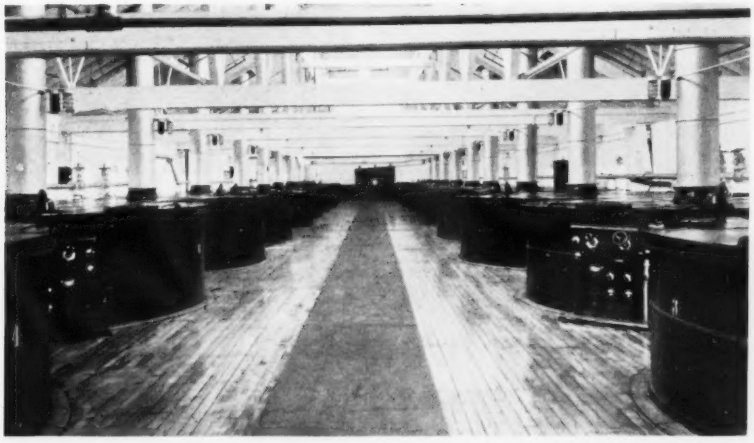
New Equipment

IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

319—Steel Stacks

Ingersoll Steel & Disc Division, Borg-Warner Corp., Chicago, has developed a fabricating procedure for stack, duct and piping construction in connection with soap kettles which is said to minimize replacement problems. Stainless clad steel in thicknesses of 16 gauge or heavier is used, with all edges flanged outward. Due to the ease of forming clad steel, the straight flanges may be formed over a bar, or on an apron forming or press brake. In the case of round piping, the flange may be formed over a ring jig or other suitable method. All joints are welded on the projecting flanged edges.



Publications

320—House Organ

Aromatic Products, Inc., 15 East 30th St., New York, has just started publication of a new house organ, *Lab-Scents*. The initial issue reviews the progress of the company during the first year of its operation and includes photographs of the plant, laboratory and personnel. Laboratory perfuming problems on specific products will be discussed in future issues. Forward applications to be placed on mailing list direct to Aromatic Products.

323—Schimmel Report

Schimmel & Co. have just issued the 1936 edition of their annual review of essential oils and perfuming materials. One section of the book provides a very interesting digest of scientific publications and patent specifications. Another section of the book carries a series of discussions of various products, listing interesting novelties, and detailing new discoveries, experiments with various oils and reviewing falsification of certain products. Obtainable through the New York office of the company at 601 West 26th St.

327—Sunburn Product

Van Dyk & Co., Jersey City, N. J., have just issued a new folder describing a new product, "Escalol," a sunburn preventive material. The product is said to be particularly successful in filtering out the light wavelengths which are most responsible for sunburn—those between 2,920 and 3,200 angstroms. Another bulletin describes a radiometer developed for measuring the efficiency of sunburn preventive preparations.

329—Laboratory Mill

Laboratory Equipment Co., New York, has just issued a folder describing the Gaulin laboratory colloid mill. The mill is manufactured by Manton-Gaulin Mfg. Co., Everett, Mass. Laboratory Equipment Co. acts as sole sales agent.

324—Koppers Products

Koppers Co., Pittsburgh, has just issued a new catalog listing products of the company and its associates. Subsidiary companies and sales offices are also listed.

325—Fat Prices

Davidson Commission Co., 327 S. La Salle St., Chicago, has just issued its latest list of high and low prices of fats and oils. Figures for the period, 1926 to 1936, are included. Copies are available.

321—Floor Maintenance

West Disinfecting Co., L. I. City, N. Y., has just published a booklet on the proper maintenance of floors of all types. Copies are being distributed without charge.

322—Smokeless Firing

Appalachian Coals, Inc., Cincinnati, is distributing a booklet "Which End?" giving instructions for the hand-firing of coal furnaces. It gives helpful hints on smokeless firing by the "alternate method." Copies available.

326—Insect Control

McCormick & Co., Baltimore, have just issued an attractive colored folder listing and describing certain insect pests and giving instructions for their control. Copies are available.

Argentine Soap Rules

New Argentine regulations governing standards and labels for soaps and soap products became effective March 1.

TO WHOM IT MAY CONCERN:

THE present situation in the fat and oil markets makes it advisable that all sources of raw materials be more fully investigated. In this connection, the pulp and paper industry offers a source of supply which should supplement fats and oils already available. The experience of our company in the production and sale of INDUSOIL and LIQRO leads us to believe that these materials should find increased interest today in the soap and allied industries to replace more expensive oils, fats and fatty acids. While material of this nature has been in use in Europe for many years, our company established at Covington, Va. the first refinery in the United States during the year of 1932.

Each succeeding year, production has been stepped up to meet the increasing demand, so that today our refining operations at this particular point are using all available raw material from our pulp and paper operations. There has also been a marked quality improvement over the past year.

At present, our company is completing the erection of a large kraft paper mill at Charleston, S. C. and from this operation there will be available a large constant supply of the soap curd which can be converted either into LIQRO (crude tall oil), or double distilled and refined INDUSOIL, depending on the interest that will develop.

We shall be glad to discuss this situation further with interested consumers of fat products and are willing to furnish samples, specifications, and other data.

INDUSTRIAL CHEMICAL SALES
Division West Virginia Pulp and Paper Company
230 Park Ave. - - - - - - - - - - New York, N. Y.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th Sreet, N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,066,941, Insecticide, Patented January 5, 1937 by Louis N. Markwood, Washington, D. C.; dedicated to the free use of the Public. An insecticidal composition comprising the product of the reaction between nicotine and humic acid.

No. 2,067,355, Cleaning Composition, Patented January 12, 1937 by Leo V. Steck, Oakland, Calif., assignor to Shell Development Company, San Francisco, Calif. A fluid cleaning composition consisting of from about 88 per cent to 50 per cent of a dichlorbutane mixed with about 12 per cent to 50 per cent of a liquid organic grease solvent.

No. 2,067,674, Germicidal Composition, Patented January 12, 1937 by Harold B. Kimberlin, New York, N. Y. A mercury compound obtainable by reaction of a double iodide of mercury and a compound belonging to the group consisting of a glycol and a glycol-ether at a temperature and a pressure above atmospheric.

No. 2,068,498, Restoring Effectiveness of Detergent Baths, Patented January 19, 1937 by Franklin H. Mackenzie, Bywood, Pa., assignor to American Chemical Paint Company, Ambler, Pa. The method of treating an aqueous cleaning chemical and a foaming agent in order to maintain it in a condition of maximum effectiveness, which method consists in determining its electrical conductivity; agitating the bath with air to determine the longevity of the resulting foam; allowing the bath to deposit sediment in order to determine the quantity of suspended matter therein; withdrawing a portion of the bath and then adding water, cleaning chemical and foaming agent in sufficient quantities to bring the electrical conductivity, the longevity of the foam, and the quantity of settled suspended matter at predetermined substantially constant values.

No. 2,068,742, Insecticide, Patented January 26, 1937 by Charles B. Gnadinger, Minneapolis, Minn. A process for producing an insecticide which consists in adding three ounces of selenium to one gallon of calcium polysulphide solution.

No. 2,069,183, Halogenated Naphthalene, Patented January 26, 1937 by Ernest R. Hanson, Bloomfield, and Sandford Brown, Montclair, N. J., assignors to Halowax Corporation, New York, N. Y. A method of obtaining substantially white highly chlorinated substitution products of naphthalene, which comprises distilling at a low pressure of 100 m.m. of mercury or less, an impure chlorinated naphthalene having a gravity of at least 1.49 at 150° C., and collecting a fraction having a substantially white color, a melting point between substantially 115° C. and 138° C. and a chlorine content between substantially 59 per cent and substantially 62 per cent.

Specialty Toilet Soaps

(*From Page 29*)

duced in the United Kingdom and elsewhere, containing quite a fair proportion of kaolin and consequently exerting an emollient action on the skin, coupled with good lathering properties.

The author has found that an excellent base suitable either for ordinary toilet soaps or shaving, can be made, incorporating up to 15 or 20 per cent of special colloidal china clay. When making clay-containing soaps for toilet or household use one cannot, of course, venture beyond a certain optimum percentage of kaolin without leading inevitably to spoilage of the soap. The clay may conveniently be incorporated in toilet soaps by milling intimately with the soap base, while in the case of household or washing soaps, it is best added in an aqueous suspension to the crutcher.

(EDITOR'S NOTE—The author makes no mention of the newest development in toilet soaps,—the addition of vitamin F which it is claimed has a direct effect on the human skin. Although viewed with skepticism in some quarters, laboratory findings over the past year or so would indicate that the use of certain vitamins in toilet soap tends to correct some skin deficiencies,—not necessarily in the disease class,—and is generally beneficial to most skins. The laboratory work on the vitamin soaps was done altogether independently of any soap manufacturer and ostensibly without the knowledge of any soap manufacturer until some months ago. (See SOAP, Nov. 1936, pg. 30.) Several toilet soaps of this type are already on the American market.)

Rancidity Test

The Korpaczy modification of the Stamm reaction detects rancidity in fats by means of the red color produced in rancid fats with a solution of diphenylcarbazid. The reaction is applicable to lard and beef fat but not to vegetable, seed and marine oils. H. L. Roschen and W. J. Lehmann. *Oil & Soap* **14**, 17-19 (1937).

Bopf-Whittam to Build

Bopf-Whittam Corp., Westfield, N. J., manufacturers of lanolin, has purchased a two acre tract of land on Elizabeth Avenue, Linden, N. J., with railroad siding facilities of over four hundred feet along the main line of the Pennsylvania Railroad. Plans are now being drawn for the erection of a modern plant by J. T. Simpson, A.I.A., of Newark, N. J.

Sulfonating Neatsfoot Oil

Neatsfoot oil is sulfonated by treatment with 15 per cent sulfuric acid at temperatures below 5° C. in the presence of a non-reactive solvent. Zschimmer & Schwartz Chemische Fabrik Dölau. German Patent No. 634,951.

"We're Set for the Season—

. . . 'No Kerosene Breath' sold us on DEO-BASE---and now it sells our entire line of household sprays to our customers."

Freedom from kerosene odor is only one of many reasons why the Insecticide Industry has endorsed Deo-Base since 1931. Stability, balanced fractionation, sparkling clarity and assurance against staining are some others.

Get set for *your* season with DEO-BASE — the modern base for liquid insecticides. It enables you to give your customers what they want—and more.

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REFINERS OF WHITE OIL AND PETROLATUM

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. . . complete assurance that your insecticide will meet the requirements for which it is manufactured is yours if you use POWCO BRAND PYRETHRUM PRODUCTS.

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Basic Pyrethrum Extract
Odorless Pyrethrum Extract
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Mothproofing Concentrates

◆

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Killing Power—That's the thing

Prentox
BEDBUG CONCENTRATE

TWO years ago we introduced a product under the name of Prentox H. I. Concentrate which found immediate acceptance in the manufacture of bedbug exterminating liquids both for use by exterminators and for retail sale in packages. Outstanding results have been obtained and the product has earned a well-deserved reputation as one of the best and most economical materials available for the purpose.

Since the use of this concentrate is largely in the field of bedbug exterminating liquids and since the name originally chosen creates some confusion we have decided to alter it from Prentox H. I. Concentrate to Prentox Bedbug Concentrate.

The Concentrate is based on Derris Resins treated in a manner to develop the maximum toxicity and mixes perfectly with the usual solvents without separation.

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for the manufacturer of
INSECTICIDES

•

PYRETHRUM
Ground for Percolation
Fine Powder
No. 20 Concentrate

•

DERRIS and CUBE
Fine Powder
Ground for Percolation
Minimum 4% and 5% Rotenone and with high content of total active extractives

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PRENTOX CONCENTRATES
(based on active Derris extractives)
for
Household Fly Sprays
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Bed Bug Liquids
Horticultural Sprays
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odors with remarkable covering power, possessing a clean refreshing scent

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new chemicals to eliminate by-odors in modern embalming fluids

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water soluble perfume oils for theatre sprays

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Trefle No. 619	2.85
Violet No. 611	3.10
Wild Flowers No. 5300	1.75

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National Association of INSECTICIDE and DISINFECTANT MANUFACTURERS Incorporated 1914

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"It's the Odor that Sells the Product"

Killing Power

that never varies!

Plus THESE SALES ADVANTAGES:

PUREST FORM OF PYRETHRINS AVAILABLE

NON-STAINING

DILUTES CLEAR

Improved Pyrocide 20 brings remarkable freedom from complaints . . . .

Our customers report, "We have enjoyed a remarkable new freedom from complaints since we have been using Pyrocide 20 as the killing agent in our household insecticides."

Why?

. . . Because the killing power of this better pyrethrum extract never varies . . . 2.4% pyrethrins by weight, equivalent to 2 grams per 100 c.c., *guaranteed.*

. . . Because the odor has been reduced until ½ to ⅔ less perfume is needed . . . a worthwhile saving in your manufacturing costs.

. . . Because it is the purest form of pyrethrins available for commercial use—will not stain.

. . . Because it dilutes clear with Deobase, or any other base oil.

If your profit depends upon making the finest household insecticides at the lowest cost . . . Improved Pyrocide 20 is your best killing agent. Although we have greatly improved this pyrethrum concentrate the price has not been increased. It costs you no more.

If you are not using Improved Pyrocide 20, you are missing a real bet. Learn more about it now. Write for complete information to: McLAUGHLIN GORMLEY KING COMPANY, Minneapolis, Minnesota.

* * *

If you require a concentrate that is practically odorless, except for the aroma of pyrethrum flowers, use ODORLESS Pyrocide 20. It sells for only 15 cents a gallon more than Improved Pyrocide 20.

Improved PYROCIDE 20

THE ORIGINAL STANDARDIZED PYRETHRUM CONCENTRATE

For Better Insecticides

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PYREFUME SUPERFINE ODORLESS

PYREFUME SUPERFINE

is light in color and odor. Inert matter has been removed. Instead of paying more for regular extract *in odorless base*, use PYREFUME SUPERFINE. This will give you a spray practically free from kerosene smell. *PYREFUME SUPERFINE* costs no more than regular *PYREFUME.*

PYREFUME SUPERFINE *Odorless*

represents a definite advance in a purified, refined pyrethrum extract. The solvent used is free from kerosene odor. This extract will not precipitate. Diluted to a 1 to 1 strength it is odorless—and practically colorless. It costs no more than *PYREFUME in odorless base.*

Both stabilized against deterioration by our original method used by our laboratories for over four years.

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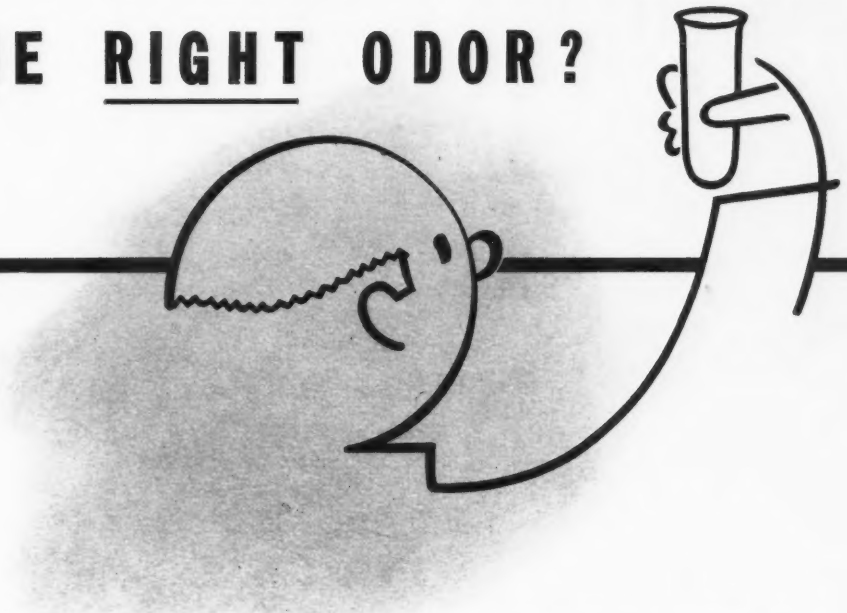

A PLEASING scent is one of the most important ingredients in a modern fly spray, insecticide or disinfectant. It has tremendous sale and resale power. It is no easy task to select the right odor—the odor that will give the best results at the lowest cost. Givaudan experts, with their pioneer experience, can give you valuable cooperation in determining the right odors to use in your products . . . and how to use them in the most economical way. We invite you to call on us for cooperation and advice regarding your specific needs.

KEROZONE—Givaudan's newer fly spray odor—unusually different and refreshing—suggesting fresh, clean air.

CITRENE for soap, cleaners and polishes. Stronger, pleasanter, cheaper than Citronella.

FLORENE covers kerosene odor in fly sprays and insecticides with a sharp, clean, refreshing scent.

ODRENE for use alone or in combination in sprays, polishes. A powerful, low-priced oil.

LILAC SPRAY OIL B-3223-2 is especially blended to overcome the odor of kerosene in fly sprays.

NEW MOWN HAY OIL B-3470 is one of the most popular in fly sprays. Especially effective in killing kerosene odor.

PARATINTS color and perfume "paradi" blocks, bath salts or moth balls in one operation . . . and do it better because of uniform penetration and more effective perfumes.

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EVERY successful insecticide manufacturer realizes the importance of making a pleasantly and correctly perfumed product. There is no other single factor in the production and marketing of an insecticide spray that can help more in obtaining bigger sales and repeat business. Realizing this, the Felton Chemical Company has scientifically studied the problem from a practical viewpoint and has developed outstanding neutralizers and perfumes with maximum consumer appeal.

Highly effective and economical, they enable you to improve your product . . . and your sales at practically no extra cost.

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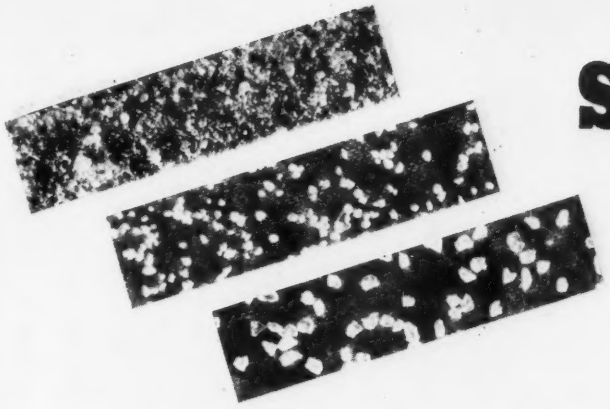

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Among manufacturers and distributors of disinfectant or moth preventative products there is a universal preference for PARADOW.

Always dependable as to strength, purity and quality, PARADOW satisfies the most rigid requirements.

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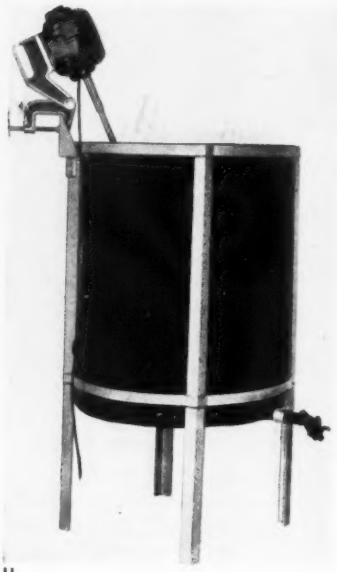

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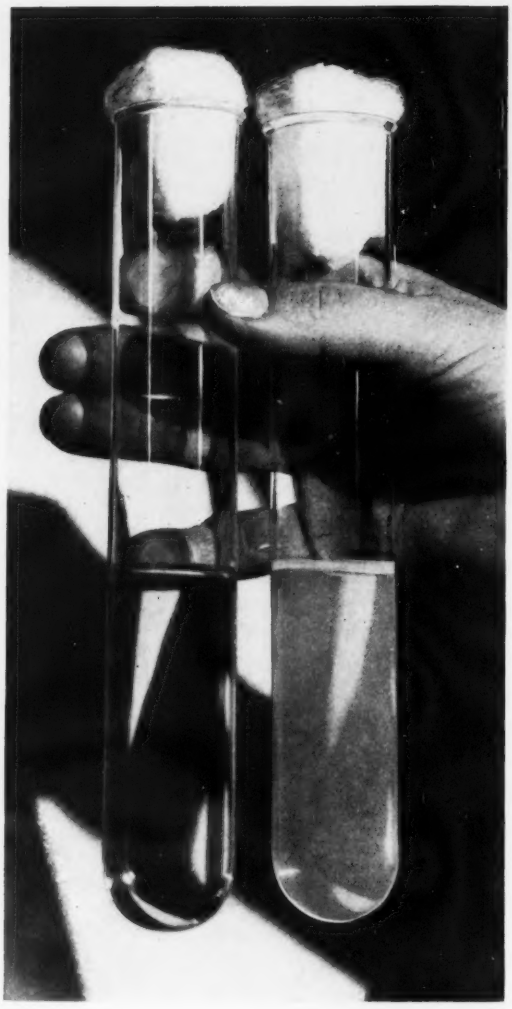

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COAL-TAR—Unadulterated high quality coal tar disinfectants, uniform, easily diluted and agreeable in odor. Do not deteriorate with age. Can supply any strength in any quantity from a pint can to a tank car. Rigid laboratory control guarantees consumer satisfaction.

PINE OIL—Prepared from pure steam-distilled pine oil. Dilute easily to form a rich white emulsion which does not separate on standing. Baird's pine oil disinfectants have a germicidal strength three to five times greater than pure carbolic acid.

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SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

PYRETHRUM extracts have been the victim of another competitive cat-and-dog fight during the past month. While pyrethrum flower prices have gone up both in primary markets and here, prices for pyrethrum extracts have been slashed on a wide front. In some instances, prices dropped to almost thirty per cent under where they were slightly over a month ago. As far as we can determine, no reason exists for the succession of price cuts except competitive animosities. Of course, buyers of pyrethrum extract do not object to purchasing supplies below cost if the manufacturers feel that they must meet competition and sell at the low levels. However, any permanent benefits to extract users from fights of this kind are distinctly questionable. In fact, we believe that market stability is far more to the interest of the buyers. Insecticide manufacturers who have been "through the mill" appreciate this fact to a greater extent than might appear on the surface. In the long run, nobody gains anything from fights of this kind which completely ignore the economic conditions surrounding the raw material market.

WITH deep regret, we recorded last month just as we went to press the passing of William G. Griesemer, first vice-president of the National Association of Insecticide & Disinfectant Manufacturers, and general manager of the Black Flag Company. For many years, he was a prominent figure in the American insecticide industry, and a leader in Association activities. He was a pioneer and recognized authority on the sale and merchandising of household insecticides. His sudden and unexpected death was a deep shock to his innumerable friends, and a great loss to the industry which he served so well.

TO avoid conflict between the jurisdiction of the new Copeland Food and Drug Bill and the Insecticide Act of 1910 in the matter of disinfectants and insecticides, the National Association of Insecticide & Disinfectant Manufacturers proposes that all products coming under the purview of the Insecticide Act should be specifically exempted from the Copeland Bill. The following wording is suggested: ". . . except that insecticide and disinfectant products shall be exempt from the provisions of this Act to the extent of the application or the extension thereto of the Insecticide Act of 1910. . . ."

It is good sense to prepare to avoid conflict and confusion in the application of the old law and the new proposed law. Quite obviously, manufacturers of these products have enough difficulties to contend with now, and do not want to be the grain between these two legislative millstones,—and between conflicting authority of two government enforcement agencies. Every manufacturer should join in this effort of the Association by urging on his senators and representative that this exemption of insecticides and disinfectants be included. Do not leave it for the other fellow. If you manufacture or market these products, whether your firm be large or small, write to Washington.

Summary of Patents for

Insecticides and Germicides

By Dr. R. C. Roark
Division of Insecticide Investigations
Bureau of Entomology and Plant Quarantine

PATENTS covering insecticidal materials, both household and agricultural, disinfectants, germicides, and products of an allied nature, which were extracted and reviewed during the last six months of 1936 as part of the regular service of Dr. Roark's Division in the U. S. Department of Agriculture, have been selected and outlined in the following summary. Only products of an insecticidal or germicidal nature are included. Patents covering equipment and devices are not included here.—THE EDITOR.

Insecticide. 2,042,712 (June 2, 1936; appl. Mar. 26, 1934). Charles B. Gnadinger, Minneapolis, Minn.—The patentee claims a process which consists in making a solution of an oleo resin of pyrethrum with decalin, diluting the decalin solution with naphtha to precipitate dissolved resins, cooling and filtering the decalin-naphtha solution, and removing the naphtha by distillation.

Insecticides. 2,043.267 (June 9, 1936; appl. Oct. 2, 1933). Vanston H. Ryan and James A. Moran, Kansas City, Mo.—The patentees claim a product adapted to serve as concentrate for a germicide, insecticide or parasiticide, comprising a product which is the result of a chemical reaction between the toxic principle of herbs of the class including pyrethrum flowers and derris root with a chemical compound of the alkylolamine family.

Diaminopyridine O-Hydroxy Benzoic Acid Salts. 2,043,547 (June 9, 1936; appl. Nov. 29, 1929). Jacques Krassny, New York, N. Y.—Osten Chemical Corp., New York, N. Y.—The patentee claims ortho-hydroxybenzoic acid salts of 2.6 diaminopyridine having the characteristics of forming crystals and being useful in different forms in the treatment of germ diseases.

Repellent and Fumigant. 2,043,941 (June 9, 1936; appl. Nov. 18, 1933). Evan C. Williams, Berkeley, Calif.—Shell Development Co., San Francisco, Calif.—The patentee claims as a fly repellent, fumigant and the like, a preparation containing as an active ingredient, a member of the class consisting of unsaturated organic sulfides and polysulfides possessing an olefinic linkage between two carbon atoms in an alkene chain linked to a cyclic nucleus and the sulfur element. Examples are methallyl sulfide and methallyl disulfide.

Insecticide. 2,044,010 (June 16, 1936; appl. July 17, 1934). Lindley E. Mills, Midland, Mich.—The Dow Chemical Co., Midland, Mich.—An insecticidal composition comprises a petroleum fraction having a sulfonation value above 50 suitable for application on the foliage of plants and trees without causing injury thereto containing a chlorinated derivative of diphenyloxide, or diphenyl, the toxic value of which composition is greater than the additive toxic values of the separate ingredients.

Process for the Purification of Pyrethrin Concentrates. 2,044,502 (June 16, 1936; appl. Feb. 18, 1936). Herbert L. J. Haller, Washington, D. C., and Frederick B. LaForge, Clarendon, Va.—Henry A. Wallace, Secretary of Agriculture of the United States of America—A process of removing fatty acids from a pyrethrin concentrate comprises dissolving the pyrethrin concentrate in aniline, treating the aniline solution with an aqueous alkali solution, removing the aqueous alkaline solution and separating the aniline from the pyrethrins by means of a mineral acid.

Insecticidal Spray. 2,044,934 (June 23, 1936; appl. Mar. 30, 1934). William S. Calcott, Pennsgrove, N. J., and Wendell H. Tisdale and Albert L. Flenner, Wilmington, Del.—E. I. du Pont de Nemours & Company, Wilmington, Del.—A method of exterminating insects comprises spraying the insects with an aqueous liquid having incorporated therein a compound of the type R_3PbX wherein R represents an unsubstituted hydrocarbon radical and X represents an acid radical. The most effective compounds are those in which X in the formula represents a thiocyanic acid radical. Of these, triethyl lead thiocyanite and triphenyl lead thiocyanate are preferred. Among the other compounds which are particularly satisfactory are triethyl lead oleate, triphenyl lead oleate, triethyl lead stearate, triethyl lead resinate, triethyl lead nitrate, triethyl lead formate, triethyl lead aceto thiocyanate, triethyl lead dithiocarbamate, triethyl lead thioglycolate, triethyl lead cyanide, and triethyl lead thiosulphate.

Insecticidal Spray. 2,044,959 (June 23, 1936; appl. Sept. 2, 1932). Wendell H. Tisdale, Wilmington, Del., and Louis S. Bake, Pennsgrove, N. J.—E. I. du Pont de Nemours & Co., Wilmington, Del.—A composition of matter suitable for use as an insecticide and fungicide comprises an oil emulsion containing ethyl mercury palmitate.

Production of Alkyl Phenols. 2,045,749 (June 30, 1936; appl. June 16, 1932). Hyym E. Buc, Roselle, and Rueben Schuler, Elizabeth, N. J.—Standard Oil Development Co.—A process for preparing alkyl phenols comprises reacting a phenol with a cracked petroleum fraction which contains predominately hydrocarbons of four carbon atoms to the molecule and which also contains tertiary butylene in the presence of a mineral acid condensing agent. These compositions are highly suitable for use as fungicides, disinfectants, germicides and for therapeutic purposes generally.

Insecticide. 2,045,925 (June 30, 1936; appl. Oct. 15, 1932). Theron P. Remy, Los Angeles, Calif.—The Texas Co., New York, N. Y.—A liquid insecticide and fungicide comprises a kerosene distillate containing in solution about 5 per cent of a liquid member of the mercaptan series of compounds recoverable from petroleum and the products of refining the same.

Salts of Esters of Parahydroxy-Benzoic Acid. 2,046,324 (July 7, 1936; appl. June 17, 1933). William H. Engels and John Weijlard, Rahway, N. J.—Merck & Co., Inc., Rahway, N. J.—Alkali-earth metal salts

of alkyl esters of para-hydroxy-benzoic acid, form white, non-hygroscopic crystalline powders moderately soluble in water and stably soluble in solutions of neutral and alkaline reaction. These are useful for preserving foods and beverages and as antiseptics.

Insecticide. 2,046,961 (July 7, 1936; appl. Jan. 23, 1934). Lindley E. Mills, Midland, Mich.—Dow Chemical Co., Midland, Mich.—A composition of matter suitable for use as a plant and tree spray comprises by weight a petroleum fraction having a sulfonation value above 50, 1.2-0.3 per cent, trichlorobenzene 0.4-0.1 per cent, an emulsifying agent 0.04-0.01 per cent, water 98.36-99.59 per cent.

Disinfecting Powder. 2,047,323 (July 14, 1936; appl. Dec. 12, 1934). Arthur J. Hettel, Rochester, N. Y.—A drying and disinfecting powder is composed of the following elements ground and mixed in the following proportions: Trioxymethylene 7.6 per cent, ammonium alum 3.4 per cent, magnesium sulphate 42 per cent, calcined gypsum 22 per cent, pumice 31.4 per cent, hydrated lime 3.4 per cent, graded marble 27.5 per cent, soap bark .42 per cnt, calcium stearate .08 per cent.

Embalming Composition. 2,048,008 (July 21, 1936; appl. Feb. 4, 1935). Hilton I. Jones, Wilmette, Ill. —Naselmo Corp., Chicago, Ill.—An embalming composition especially adapted for hardening tissues from the outside of the body and of sufficiently solid consistency to adhere to the surface thereof, comprises an emulsion of formaldehyde in a fatty substance containing at least one constituent of lanolin, and including a buffer agent capable of preventing a substantial drop in pH of said composition and consequent breaking of said emulsion.

Oil-Soluble Mercury Compounds. 2,049,294 (July 28, 1936; appl. Nov. 23, 1934). Albert L. Flenner, Wilmington, Del.—E. I. du Pont de Nemours & Company, Wilmington, Del.—A method of preparing an oil solution of beta-naphthol mercury oleate comprises incorporating, in a hydrocarbon oil having a boiling point above 120° C., beta-naphthol 1-mercuric acetate, adding one equivalent of oleic acid, heating the mixture to a temperature sufficient to distill off acetic acid but insufficient to distill off or decompose the oil or the oleic acid, and maintaining such temperature until the liberated acetic acid is distilled off. These oil solutions and emulsions are useful as fungicides and as preserving agents for wood, fabrics, cordage for fish nets, and the like.

Insecticide. 2,049,725 (Aug. 4, 1936; appl. Mar. 20, 1935). Lloyd E. Smith, Washington, D. C.—United States Government and people of the United States—An insecticide contains as its essential active ingredient a diaryl thioxine, e.g., phenothioxin. Upon mosquito larvae in aqueous solutions phenothioxin in all concentrations up to 1 part in 500,000 was as effective as rotenone. In laboratory tests upon codling moth pbenothioxin with bentonite as a wetting agent as a spray was at the same dosage more effective than lead arsenate. As a spray in a kerosene solution phenothioxin was effective against house flies.

Mercury Compounds of Benzo-Trifluoride. 2,050,075 (Aug. 4, 1936; appl. Oct. 18, 1933). Ernest H. Volwiler, Highland Park, and Elmer B. Vliet, Pine Bluff, Ill.—Abbott Laboratories, North Chicago, Ill.—The patentees claim a mercury benzotrifluoride compound wherein mercury is directly attached to the benzene ring, said compound having antiseptic properties. These new compounds are valuable as antiseptics and for other therapeutic purposes in which mercury compounds are employed. The three fluorine atoms attached to the carbon enhance the antiseptic action of the compounds. Furthermore, when three fluorine atoms are attached to the same carbon, as in this invention, the fluorine is not readily hydrolyzed, and the compounds are very stable and non-irritating.

Purified Pyrethrin Concentrate. 2,050,974 (Aug. 11, 1936; appl. Sept. 12, 1935). Frederick B. LaForge, Clarendon, Va., and Herbert L. J. Haller, Washington, D. C.—United States Government and people of the United States—A process of preparing a purified pyrethrin concentrate comprises extracting pyrethrum flowers with an organic solvent, dissolving the resulting oleoresin in glacial acetic acid, adding water in a sufficient quantity to precipitate the contained fats, waxes and coloring matter, filtering off the precipitate and separating the pyrethrin concentrate from the acid solution by the further addition of water.

Destroying Insects and the Like. 2,051,057 (Aug. 18, 1936; appl. Nov. 13, 1934). Robert M. Pettit, New York, N. Y.—Ray-D-Ize Corporation, New York, N. Y.—The patentee claims the method of destroying insects and the like by irradiation, which consists of generating infra-red radiations consisting substantially of wave lengths of from 7,700 to 26,000 Angstrom units, and collecting and directing said radiations against said insects for a sufficient period of time to cause death thereof.

Water-Soluble and Water-Miscible Insecticides. 2,052,374 (Aug. 25, 1936; appl. Apr. 28, 1934). Robert Wotherspoon, East Orange, N. J.—Derris, Inc., New York, N. Y.—An aqueous-disseminatable composition of matter consists of an insecticide obtainable from derris and similar insecticidal-containing plant materials containing rotenone, deguelin, tephrosin and toxicarol and a water-soluble phenol containing at least two hydroxyl groups For example: 12.5 parts by weight of rotenone are mixed with 87.5 parts by weight of resorcinol in a vessel equipped with a heating arrangement. Heat is applied and when melted the contents are withdrawn and allowed to cool. The product is then ground in a suitable grinding mill. This material is miscible with water in all proportions and when so mixed is highly toxic to most insects.

Method for Deodorizing. 2,054,966 (Sept. 22, 1936; appl. Nov. 16, 1934). Bert O. Crites, University Heights, Ohio—Gibbs Manufacturing Company, Canton, Ohio—A method of disposing of odorous gases in the presence of water in toilets, etc., comprises throwing into the water a deodorizing agent and vigorously agitating same by an alkali carbonate and an acid salt reactive together on contact with the water to generate carbon dioxide.

Insecticide and Germicide. 2,055,491 (Sept. 29, 1936; appl. Jan. 13, 1932). William H. Hampton, Berkeley, Calif. — Standard Oil Company of California, San Francisco, Calif.—An insecticidal and germicidal base product, capable of being diluted and emulsified with water, consist of between about 75 per cent and 85 per cent by volume of aromatic and unsaturated constituents derived from petroleum oil and soluble in liquid sulfur dioxide, 3 per cent to 12 per cent by volume of oleic acid, 1 per cent to 4 per cent by volume of concentrated caustic solution, and 5 per cent to 15 per cent by volume of cresylic acid.

Insecticide. 2,056,121 (Sept. 29, 1936; appl. May 21, 1934). Walter Carter, Honolulu, Territory of Hawaii —An insecticide comprises a Diesel fuel oil emulsified by means of a clay of the bentonite type and high speed agitation, the emulsion consisting of the following ingredients in substantially the following proportions:—100 ccs. of a Diesel fuel oil, 100 ccs. of water and 10 grams of bentonite, which emulsion is stable and can be sprayed on tender plants without injury to the latter.

Salts of Esters of Para-hydroxy-benzoic Acid. 2,056,176 (Oct. 6, 1936; appl. June 17, 1933; divided and filed Sept. 19, 1935). William H. Engles and John Weijlard, Rahway, New Jersey—Merck & Co., Inc., Rahway, New Jersey — The patentees claim alkali-earth metal salts of aral-

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Insecticidal Spray. 2,056,238 (Oct. 6, 1936; appl. Feb. 3, 1934). William H. Volck, Watsonville, Calif. — California Spray-Chemical Corporation, Berkeley, Calif.—An insecticidal spray composition, useful in horticultural pest control, comprises emulsified mineral oil, a fatty acid soap of an alkali metal which soap is neutral to phenolphthalein due to an excess of the fatty acid, casein, water soluble petroleum sulfonic salts and an alkali sensitive stomach or contact poison for insects.

Insecticides. 2,056,438 (Oct. 6, 1936; appl. Sept. 4, 1935; in Great Britain March 30, 1935). Harold G. Ward, Wallasey, England.—The patentee claims the process for extracting toxins for the manufacture of insecticides from Barbasco root, comprising the steps of treating the root, in a broken-up state, with common alcohol in the proportion of 100 grammes of the root to 400 c.c.s. of common alcohol to which is added 11½ per cent by volume of chemically pure sulphuric acid, allowing the mixture to digest under the action of the internal heat generated, the common alcohol dissolving out the retenone, tephrosin, deguelin and toxicarol raising the temperature of the mixture by heat derived from an external source, filtering the mixture neutralizing the filtrate by adding sodium carbonate thereto, refiltering, this final filtrate containing not only the rotenone but also the deguelin, teprosin and toxicarol, and mixing the final filtrate with soft soap.

Spray Compound. 2,056,529 (Oct. 6, 1936; appl. June 13, 1934). Frank F. Lingstaedt, Oakland, Calif. —A toxic spray compound mixed with an aqueous carrier comprises approximately from one-half to one per cent to two and one-half per cent in said carrier of a mixture of approximately from one to five per cent of chaulmoogra oil in hydrocarbon oil of between approximately thirty-five and one hundred and ten Saybolt viscosity.

Insecticide and Parasiticide. 2,057,044 (Oct. 13, 1936; appl. April 22, 1935; in Germany April 28, 1934). Kurt Meisenburg, Leverkusen-I-G Werk and Hans Kukenthal, Cologne-Flittard, Germany—Winthrop Chemical Co., Inc., New York, N. Y.—The patentees claim an insecticide and parasiticide comprising as an active ingredient a dichlorinated butene.

Insecticidal Solution. 2,058,200 (Oct. 20, 1936; appl. Sept. 12, 1932). Robert Wotherspoon, East Orange, N. J.—Derris, Inc., New York, N. Y. —A composition of matter consists of a non-aqueous solution of the insecticidal principles of derris in camphor oil, said camphor oil being in sufficient quantity to maintain the insecticidal principles in solution and a petroleum hydrocarbon. For example 10 parts of a 1 per cent solution of rotenone in camphor oil are mixed with 90 parts by volume of petroleum distillate.

Insecticide. 2,058,588 (Oct. 27, 1936; appl. April 15, 1935). Carl P. Hopkins, Grand Junction, Colo.—The Latimer-Goodwin Chemical Company, Grand Junction, Colo.—An insecticide comprises an insect poison, and a carrier which renders deposits thereof easily removable, said carrier containing as an essential ingredient an emulsified unneutralized heterocyclic nitrogenous oily base. As an example: Pyridine is emulsified with triethanolamine oleate to an 80 per cent emulsion, and lead arsenate is incorporated at the rate of 4 pounds per gallon of pyridine.

Insecticides. 2,058,832 (Oct. 27, 1936; appl. March 17, 1933). Nicholas A. Sankowsky, New Providence Township, Union County, N. J. —Stanco Incorporated—The patentee claims a method for preparing a clear concentrated liquid insecticide which comprises extracting rotenone, and other constituents toxic to insects, from a plant containing such toxic substances, by treating said plant with a mixed solvent, which is capable of selectively dissolving said toxic substances to the exclusion of resinous materials which, upon dilution of the extract with kerosene, would be precipitated, comprising a petroleum distillate having a maximum boiling point below 625° F. and a sufficient amount of an organic solvent soluble in the petroleum distillate and having solvent power for said toxic substances to dissolve at least 2½ per cent of said toxic substances. For example derris root, cube root or other plants containing rotenone are extracted by a counter-flow method, or by percolation, etc., with about 20 to 30 per cent solution of ethylene dichloride in a petroleum distillate. A concentrated extract is obtained containing about 2.5 per cent of rotenone and about 5 per cent of rotenoids.

Termite Control. 2,059,095 (Oct. 27, 1936; appl. June 24, 1932; renewed March 30, 1936). Evan L. Fellman, Memphis, Tenn.—E. L. Bruce Co., Memphis, Tenn.—A method of termite control for wooden structures comprises digging trenches in the ground closely adjacent to the foundation walls and around piers and supports in contact with the ground and putting in the said trenches an insecticide containing a normally solid toxicant in a volatile solvent that leaves behind the solid toxicant, on evaporation of the solvent, to completely poison the said ground. A suitable solution is: Alcohol, 690 lbs.; beta-naphthol, 432 lbs.; rosin, 432 lbs.; orthodichlorobenzol, 2,398 lbs.; V. M. & P. naphtha, 3,520 lbs.

Insecticide. 2,059,125 (Oct. 27, 1936; appl. June 29, 1931; renewed March 16, 1936). Frank H. Lyons, Memphis, Tenn.—E. L. Bruce Co., Memphis, Tenn.—A insecticide for termite control consist of: alcohol, 690 lbs.; beta-naphthol, 432 lbs.; rosin, 432 lbs.; orthodichlorobenzol, 2,398 lbs.; V. M. and P. naphtha, 3,520 lbs.

Mercury Carboxylates. 2,059,195 (Nov. 3, 1936; appl. Jan. 9, 1935). Carl N. Andersen, Watertown, Mass. —Lever Brothers Co.—The patentee claims a new organic compound of the general formula $C_6H_3Hg.R_1$, in which R_1 represents a poly-substituted aromatic mononuclear carboxylic acid radical, each of the substituted groups being different and one being the OH group, which radical is linked to the RHg group through the replacement of a carboxyl hydrogen atom. Examples are phenylmercury anisate, phenylmercury acetyl salicylate, and phenylmercury orthocresotinate. These organic mercury compounds are useful as germicides.

Alkyl Chloro-resorcinols. 2,060,654 (Nov. 10, 1936; appl. July 26, 1933). William E. Austin, New York, N. Y.—Bank of The Manhattan Company — The patentee claims alkyl chloro-resorcinols of the general formula $C_6H_2Cl(OH)_2(CHR_1R_2)$ where H is hydrogen, and R_1 and R_2 are alkyls, the group CHR_1R_2) containing not less than four carbon atoms and being attached to the chloro-resorcinol nucleus by a carbon other than an end carbon. The new alkyl chloro-resorcinols manifest a much greater antiseptic and germicidal activity than the corresponding unchlorinated alkyl resorcinols in all the members containing four or more carbons in the alkyl group without any increased toxic properties.

Method of Producing Nuclear Alkylated Aromatic Compounds. 2,061,593 (Nov. 24, 1936; appl. March 5, 1934). Jack D. Robinson, Buffalo, N. Y.—National Aniline and Chemical Company, Inc., New York, N. Y.—A method of producing a nuclear alkyl derivative of a phenol of the benzene series, comprises heating the phenol with the corresponding higher alkyl ester of a saturated higher fatty mon-

(*Turn to Page* 111)

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Paste and Liquid Waxes

A study of the manufacture, raw materials, characteristics, uses, packaging, and costs of solvent base wax polishes

By Charles S. Glickman

THE manufacture of paste and liquid waxes containing organic solvents,—commonly termed solvent type waxes,—dates much further back than the wax polishes which hold the center of the stage today,—namely, the water emulsion waxes. Although paste and liquid waxes in the form of various polishes have been known and manufactured for many years, their scientific preparation was more or less in the same state of technological infancy as were the water emulsion waxes until comparatively recently. Associated with the manufacture of solvent wax products over the years has been much secrecy, and a general antiquity of process which have been somewhat difficult to understand. With the coming of water emulsion waxes, the spot-light was shifted away from the solvent type, and the latter has lost most of its prestige.

Although little on complete working formulas will be given here, a general discussion of the manufacture, uses, testing, and duplication of paste and liquid waxes will be offered so that technical men in the field will have an opportunity for comparison of their own methods with those suggested. The first consideration covers the various waxes applicable for use in paste and liquid waxes, including those synthetic waxes as have already proven themselves adaptable.

TABLE 1.

Natural Waxes	*Synthetic Waxes*
Carnauba	Wax 1
Candelilla	Wax 5
Ozokerite	Wax 6
Ceresin	Paraffin "X"
Paraffin	
Beeswax	

Note: The synthetic waxes referred to by number are listed under the same classification in a former article published in the September and October issues of SOAP, 1936. Their chemical properties will, however, be reviewed again in a following table.

It will be likewise noted that Table 1. does not include all commercially available waxes, and while such waxes as montan, japan, etc., have been omitted, it does not necessarily follow that they cannot be used.

References in various books of rather casually compiled formulae state that a "60-40" blend of say carnauba and ozokerite or carnauba and paraffin together with a good wax solvent such as turpentine is satisfactorily for use in paste and liquid polishes, but what they fail to state is how the manufacturer can stay in business with a product that costs so much to prepare, it has been our experience, therefore, that while such combinations may be satisfactory for scientific purposes, requirements of price, ease of formulation, packaging, application, and prevention of separation in the container, either before being entirely cold, or after, as in the case of liquid waxes, they do not allow of such simple treatment of the problem as a whole.

A paste or liquid solvent wax is generally composed of a blend of waxes so dissolved in a solvent or combination of solvents as to produce a product of the requisite hardness or viscosity which when applied to a matte surface like wood or linoleum will result in a hard and lustrous finish after proper buffing or polishing. Such a product must of necessity be free from irregularities such as "graininess" (the presence of small hard particles), in the case of the paste waxes and separation in the case of the liquid waxes.

Investigation, as well as the preparation of a large number of both paste and liquid products, has brought certain definite conclusions. The relative amounts and types of various waxes that enter into the formulation of this type of product as well as blends of solvent have been determined. Upon comparison of a number of perfected formulae, which covered such salient features as raw material costs, rapid drying, gloss, wear, ease of application, polishing and ease of manufacture and packing, it was discovered that the solute consisted of a high melting point wax of high gloss and rather poor solubility, together with an intermediate melting point wax of good solubility and fair gloss and low melting point

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wax of excellent solubility and poor gloss dissolved in a solvent or mixture of solvents.

For example, the first wax was found to be either carnauba or candelilla or possibly one of the higher melting synthetic waxes, while the intermediate product was either ozokerite, ceresin or beeswax and the low melting point wax, paraffin. The solvent was either a form of solvent naphtha, or a combination of the former with a small amount of carbon tetrachloride or trichlorethylene. In the case where the carnauba was present, ozokerite and paraffin were both used as a means of controlling the "graining" of the carnauba and a small amount of a better solvent used as a means of increasing the solubility of the solvent as a whole.

Thus we find that when this product was applied to a surface, the solvent evaporating left a waxy mass having the very hard carnauba suspended within a matrix of softer wax, —ozokerite,—and that in turn surrounded by a coating of very soft wax,—paraffin. Thus the effect on polishing and wear was to have the hard wax take the brunt of the wear, but this in turn was controlled by the presence of the ozokerite and paraffin which acted as the soft metal in a bearing acts allowing the hard metal to constantly readjust itself to pressure.

The blend also allows greater latitude in the cooling and packing of the product. The effect of a blend of waxes, as before mentioned, causes an effect of controlled cooling thereby preventing any one wax separating itself from the others during the packing of the container. The cooling is gradual and slow. Likewise blending allows of lowered production costs and raw material costs. Table No. 2 herewith lists the waxes in their order of melting point and gives their other chemical properties as well.

Solvents

AS it is necessary to use the proper blend of waxes as a polishing medium, so is it necessary to employ the proper solvent or solvents as a dilutent. Fortunately synthetic organic chemistry has provided us with a wider range of efficient solvents than nature has seen fit to make available to us. This fact, coupled with the additional situation that makes an increased demand for cheaper products, allows us to use inferior solvents in the formulation of paste and liquid wax polishes, but only on condition that these synthetic solvents are added in requisite amount in order to compensate. Then again certain of these solvents may be so admixed as to create special effects when so required.

For example, the use of spraying equipment in place of manual application and mechanical polishing machines in lieu of "elbow grease" make necessary certain vital changes in composition. A mechanically applied and polished floor wax needs solvents with a rapid evaporation rate as little time is allowed for drying after application and before polishing. On the other hand, it also permits the use of harder waxes with smaller amounts of intermediate and low melting point additions.

To show the application of the use of mixed solvents, we will take the case of carnauba wax. As we all know, this wax will not give a smooth (free from "grains") solution in a solvent such as naphtha. We can overcome this defect by the addition of small amounts of additional special solvents such as tetrachlorethylene or isopropyl ether or even some of the hydrogenated aryl compounds. Of course it is likewise possible to achieve a similar effect by proper blending of the solute content, but conditions sometimes arise where this is undesirable or impossible. Considerations of raw material costs may also affect the need for special solvents.

Table 3 on pg. 103 lists some of the more general solvents applicable to formulative requirements.

Table 4 on page 103 lists the solubility (figures are approximate), of the various waxes in the above listed solvents.

TABLE 2 (Natural)

M.P. (Deg. C.)	*Wax*	*Sp.G.*	*Sap. No.*	*Acid Number*
		H I G H		
83- 91	Carnauba	.990-.999	78-88	4-8
67- 68	Candelila	.969-.993	46-65	16
		INTERMEDIATE		
58-100	Ozokerite	.850-.950	0	0
62- 70	Beeswax	.959-.975	88-96	16.6-20.6
54- 77	Ceresin	.880-.920	2	0
50- 68	Paraffin	.880-.915	0	—
		L O W		
		SYNTHETIC—HIGH		
105-108	Wax 1.	——Ester Value 110- 25		Acid Value 10-15
75- 77	Wax 5.	——Ester Value 130-150		Acid Value 10-20
		INTERMEDIATE		
50	Wax 6.	——Ester Value 10		Acid Value 0
		L O W		
59- 95	Paraffin "X"	———		———

Solvents and Surfaces

IT is important to bear in mind that we are not dealing with "sealed" surfaces but that the areas to be coated are porous and therefore the type and amount of solvent is an important consideration. The solvent must be one that the spongy surface can absorb and dissipate in the amount of time allowed between application and buffing. A polish that is to be buffed immediately after application must contain a solvent of either high absorptive value (into the coated area), or else of a very high evaporation rate.

Some time ago we were requested to create a satisfactory substitute for a liquid "traffic" wax. This material was to be produced at a raw material cost or from sixteen to twenty-five cents per gallon. The standard was examined and especial attention paid to actual performance tests. A blend of waxes was created

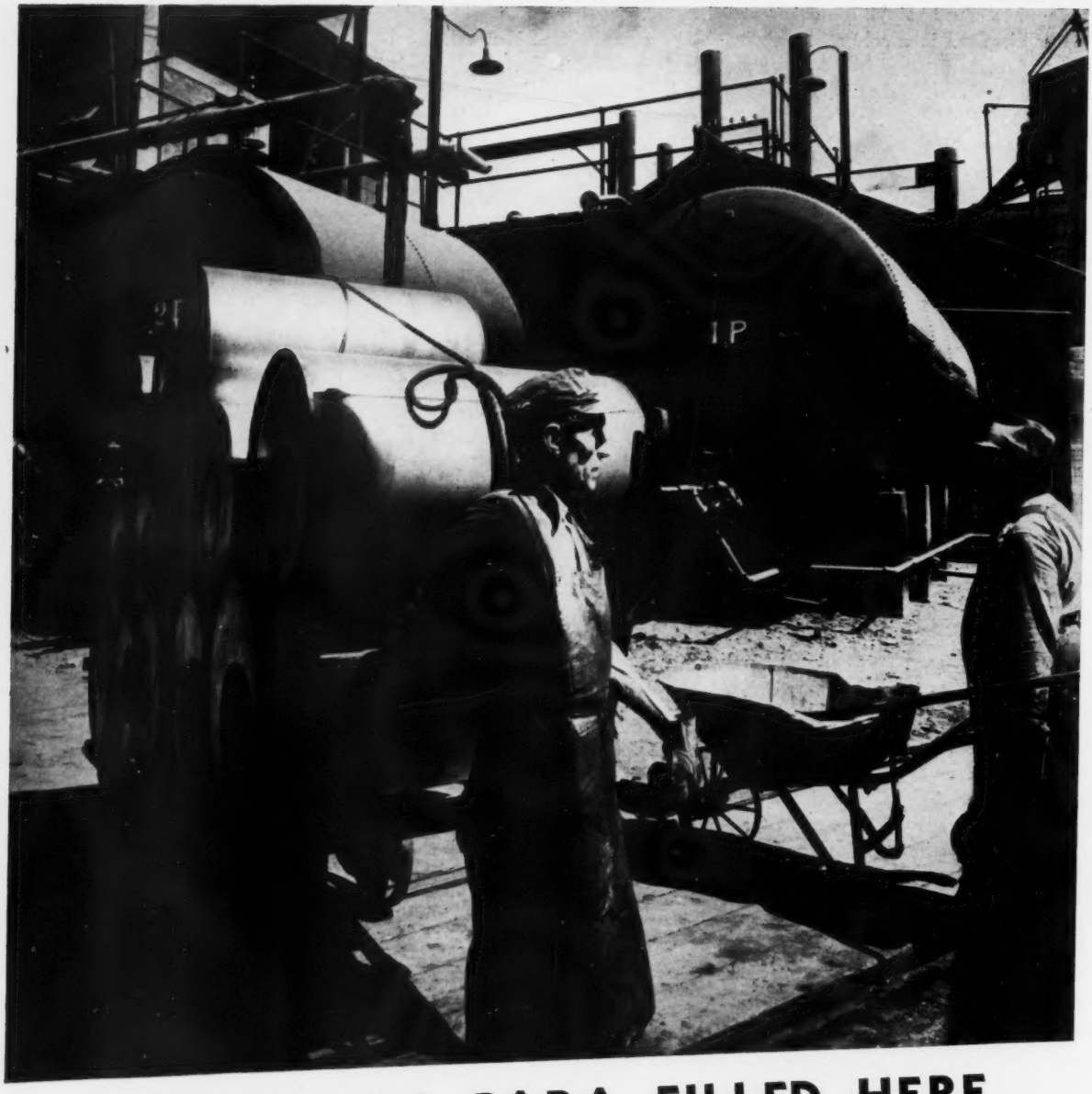

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TABLE 3.

	Solvent	*Lbs. per gal.*	*B. P. Cent.*	*Miscibility (naphtha)*
1.	Acetone	6.65	56.	M.
2.	Carbon Tet.	13.29	76.	M.
3.	Cyclohexanone	7.87	156.-159.	M.
4.	Decalin	7.41	190.	M.
5.	Hexalin	7.87	160.	M.
6.	Isopropyl Ether	6.05	67.5	M.
7.	Naphtha	7.2	100.-130.	—
8.	Tetralin	8.12	206.	M.
9.	Tetrachlorethylene	13.16	147.	M.
10.	Turpentine	7.21	160.-190.	M.
11.	Methyl Hexalin	7.75	170.-190.	M.
12.	Xylol	7.21	142.	M.

soluble in a single cheap solvent and tested under standard control conditions against the original. With the exception of the fact that the substistute was slightly more viscous and less separating, they could scarcely be detected apart. Both were applied by spraying and buffing on a standard surface in like amount and buffed by machine the same number of times.

A very peculiar phenomenon came to light. The original gave a smooth hard finish equal in gloss at all points of application while the substitute showed streaks of glossier and duller appearance. After much study, the answer became obvious. The surface to which both were applied had running across it at regular intervals, a shallow channel which divided the entire area into a series of small squares. It was discovered that the substitute gave rise to small streaks of extremely high lustre at the intersections of these channels and also along the line of the channel. It was finally discovered that the original dried more rapidly and that the substitute having a higher boiling solvent took longer to evaporate. The sprayed film of the substitute, taking longer to dry, was in a fluid condition in the channel when the buffing machine was applied. The friction caused the solvent to evaporate readily and concentrate the wax along the lines of the grooves, and at the intersections. The difference was immediately corrected by the judicious use of a small quantity of very low boiling solvent which increased the entire evaporation rate and allowed more uniform polishing.

TABLE 4.

Wax	*Sol.*	1	2	3	4	5	6	7	8	9	10	11	12
Carnauba	F	G	G	G	G	G	G	P	G	G	F	G	—
Candelilla	—	G	G	G	G	G	G	F	G	G	G	G	—
Ozokerite	F	—	G	G	G	G	G	F	G	G	G	G	G
Ceresin	—	F	G	G	G	G	G	G	G	G	F	G	G
Paraffin	F	G	G	G	G	G	G	G	G	G	F	G	F
Beeswax	F	F	G	G	G	G	G	F	G	G	F	G	F
Wax 1	F	G	G	G	G	G	G	G	G	G	G	G	F
Wax 5	F	G	G	G	G	G	G	G	G	G	G	G	F
Wax 6	F	G	G	G	G	G	G	G	G	G	G	G	F
Paraffin "X"	G	G	G	G	G	G	G	G	G	G	G	G	G

Note: This table is not calculated from any determination of how much solute will dissolve in a given amount of solvent at a standard temperature but is based upon performance data, in the regular course of formulation.

We can therefore see that due consideration must be given to the type of polishing, and the means of application. If the polishing is to be done by machine and the application by spray gun, lower boiling solvents must be used so as to aid in the rapid treatment of the surface. If polishing is to be done by hand then consideration of the length of time required for application and polishing must also be given.

TABLE 5*.

Solvent	*% CCl_4 (Volume)*	*% Solvent (Volume)*	*Flash Pt. Deg. F.*
V.M.P. Naphtha	30	70	75.
Sp.G. .746	40	60	100.
	50	50	Over 170.
	60	40	" "
	70	30	" "
Dry Cleaner's	30	70	65.
Naphtha, Sp.G.	40	60	90.
.745	50	50	Over 170.
	60	40	" "
	70	30	" "

Inflammability

OBVIOUSLY it is possible that, when desired, relatively non-inflammable paste and liquid wax polishes may be prepared although such products will necessarily be more costly. There is a logical demand for such products, let us say, on ships where the storing of inflammable material always presents a hazard to life and property. If desired, the following Table 5 can be used for the determination of relatively safe solvent mixtures providing one discounts the presence of inflammable material:

Another method which is even more effective in the preparation of non-inflammable paste and liquid wax polishes is emulsification. Some time ago, we were requested by a firm dealing with the shipping trade to develop a more fire-resistant polish. The method employed in the satisfactory solution of this interesting problem was combining the paste or liquid wax in the correct proportions with water in the form of an emulsion and using an emulsifying agent that would not interfere with the polishing properties of the final product.

It was to be expected that the original form and appearance of the product would be changed. The prep-

* Booklet on Organic Solvents by Dow Chemical Co.

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aration of the product on a commercial scale involved the use of a high speed pump, the outlet of which was fitted with a relatively small nozzle or tip through which the expelled emulsion passed. Of course there were several other technical considerations such as the marked increase in viscosity when a liquid wax was mixed with water and emulsified, as well as the desirability of using either a hot or cold process in the emulsification.

Slip-proof Waxes

THE widespread use of paste and liquid as well as water emulsion waxes, in the home and industrially in large buildings has given rise to another important problem in connection with their use. That difficulty is the slipperiness of the dry film. Many manufacturers claim to have perfected a slip-proof or non-skid paste and liquid wax. The actual materials and means of incorporating them is deeply shrouded in mystery.

Some manufacturers claim to have some secret or rare ingredient. The product to be added must be one which is compatible with the other components of the product and which must not materially interfere either with the polishing, application or wearing properties. We have found in certain cases that small amounts of rosin, rubber or other natural or synthetic resins and gums are applicable and serve the purpose.

Manufacture

THE actual manufacture of paste and liquid waxes is a relatively simple matter when in the hands of a skilled operator. As a rule, however, we find the making of these products delegated to an unskilled laborer who is merely informed that he is to take so many sacks of number 5 and so many sacks of number 8 and so many pounds of number 50 and dump them into the melting kettle. He is to heat them until they are melted and then stir them and after that open the faucet and pour in so many gallons of liquid number 3. Another laborer appears on the scene after that with orders to fill each can one-quarter full and set it aside till it has cooled, then to repeat the operation again in like amount until each can has been filled. This operation which is in use in a number of plants is referred to as "layering" and is done to insure the even distribution of wax throughout the depth of the can.

Still other firms have gone to the extent of installing a conveyor belt passing through a cooling chamber. Each layer is cooled separately. Still another firm has arranged a series of fans so placed as to cool the liquid in the can after filling. All this would indicate that these people either have very little knowledge of what the whole matter is about or else are purposely using antiquated methods.

By means of a blend of the proper amount of different waxes and proper temperature control as well as proper solvent proportions, most of this fancy procedure can be eliminated. There can be no "graining," separation, or any need for "layering." If the proper blend of waxes is used, the temperature loss gradient will be gradual and not sharp. The can will be filled in one operation,—hot.—with no fans or refrigeration necessary and with the only precaution that the temperature must be carefully observed and kept constant.

What is also lacking in many plants aside from skilled labor, is proper precaution against toxic effects. Kettles and filling machines should be hooded with proper exhaust vents so as to dissipate fumes which after a period of time of exposure have definite effect. Heating should be done by steam and the steam supplied from a boiler in another part of the building. Electric lights and motors should be properly protected so as to avoid sparks which may ignite dangerous vapors. While it is quite feasible to use open heat in the preparation of these products, the container holding the molten wax should be a movable one,—like a varnish kettle,—and the addition of solvent made in another room or in the open.

Another interesting angle which is of importance to some manufacturers, — those engaged in extremely competitive business,—is the matter of packaging. Most of us have often heard the remark that so and so was "working for the can company." Even though we have rarely if ever concerned ourselves with this aspect of merchandising, the problem seemed to strike our fancy and as a result we developed what to most manufacturers will not be in any manner of thinking, novel, but in this case was original.

After all, when it resolves itself to a choice of container, everyone is limited to certain definite materials. After a number of experiments involving special coatings to prevent staining and leakage and proper temperature controls, we finally decided upon paper containers, or to be more exact, cardboard ones. The main difficulty was in the prevention of the solvent attacking the coating on the container and in this way destroying the added effect of easier decoration of the outside. The cost of paper containers is of course considerably less than tin.

Analysis and Duplication

OFTENTIMES, manufacturers are confronted with a competitive product submitted to them by their own salesmen or by an outside "jobber" who has been carrying their line, with the same subtle suggestion in either case,—that unless it is duplicated at the same or at a lower price than the other manufacturer is selling it, either the business or the sales outlet will be lost. The analysis and duplication of competitive paste and liquid wax polishes is not difficult providing the analyst has something more than a scheme of analysis as a means. What we have reference to is what was once referred to as the "know how."

Here is a rather simple scheme of analysis that will cover the more general and salient features of a procedure designed to answer most requirements. It must be remembered again that without a definite working knowledge of the basis of manufac-

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ture and formulation, any analysis would be of little value. The following is intended for paste and liquid waxes.

A. Physical appearance
   1. Color
   2. Odor
   3. Hardness to touch or viscosity.

B. Application
   1. Spreading properties of a standard amount on a given area with a standard applicator.
   2. Drying time or smear,—time required for smear to attain a uniformly dull grayish appearance.
   3. Number of times required to buff smear to a gloss.
   4. Gloss of polished smear.

C. Melting point of material to be duplicated or analyzed, or viscosity.

D. Solution in hot alcohol tested with phenolphthalein for any possible alkali present as soap and used as an adulterant or filler.

E. Distillation of product
   1. Weight or volume of solvent
   2. Weight of solids

F. Fractional distillation of solvent
   1. Weight of each fraction or volume thereof.
   2. Odor of each fraction.

G. Examination of solids
   1. M.P.
   2. Color
   3. Odor

As will be seen from the above plan, only the more general characteristics are noted and especial stress placed upon performance tests as in the final analysis, that is what we are attempting to duplicate. The standard surface can be a small square of linoleum and the buffer, cheesecloth. The performance test should be duplicated as accurately as possible with the duplicated product. Temperature conditions both as to the temperature of the samples and the room should also be as close as possible. The melting point of the sample to be duplicated is also important as it serves as a further check upon a purely tactile observation. Likewise a smear made with a fixed amount of sample over a fixed surface and with a fixed amount of cloth also serves as a close check.

The distillation test serves to separate the components into two groups which are later tested further according to the extent and ability of the analyst. If two or more fractions are present they can generally be determined and their specific amounts as well. The solid portion is more difficult of analysis. It should first be checked for melting point. Following that it may be divided up into several small portions and each tested separately. One portion may be tested for the presence of rosin which is often used as a filler or adulterant. There are colormetric tests for this determination. Another portion may be tested for the presence of either aluminum, zinc or magnesium as these are often found in compound form and used as bodying agents. Another portion may be burned in an open dish to detect the presence of rubber which is sometimes used to give non-skid properties. Its odor is easily recognizable. From this point on, any of a number of tests may be used to attempt an actual determination of specific waxes. Solubility, saponification, or acid number tests can be applied.

Assuming now that all the necessary data have been collected and the relative proportions of solids and solvent, the melting point of the solids, etc., are all known, the next step is to interpret those results in the light of experience. The solvents, by means of a chart listing the boiling ranges of the material will serve as an excellent lead towards enumerating them specifically. If in doubt, further tests can be applied as specific gravity and refractive index tests to make certain. In some cases exact colormetric tests can also be used.

With regard to the solid content, if we find for example that the melting point is about 79-80 degrees C., we can assume that we are dealing with a mixture of several waxes. It is also important at this point to state that certain information such as the price of the container, commissions paid for its sale, margin of profit, etc., should be considered as all these items deducted from the cost per unit weight of sample and with the additional deduction of a certain amount for solvent which is more readily determined than the solute gives us an immediate lead as to what the waxes should cost. Expensive synthetic waxes are necessarily precluded, if the estimated conclusion so warrants.

We proceed by trial and error to combine various proportions of carnauba, ozokerite and paraffin being guided at all times by our estimate of what the waxes should not exceed in cost. When we believe that we have duplicated the wax blend, we verify it by several methods, melting point, solubility, color, odor and lastly actual performance. A sample is prepared of approximately the same proportions as the original and tested as before described for performance. If for example, it does not dry rapidly enough, this can be corrected by the addition of a small amount of low boiling solvent. If the sample seems to smear then it may be necessary to increase the high melting point wax content or else lower the soft or low melting point wax content.

Product to Meet a Price

WHAT does the average manufacturer do when he is asked for a product at what seems a ridiculously low price? He has his choice of but two general procedures, either to adulterate his standard product by adding more solvent and fillers or else try and produce the product. Under the general classification of adulterants might enter the following products:—rosin, gums, soap, or synthetics. Another possibility lies in the use of certain compounds of aluminum, magnesium of zinc.

On occasion, there have been produced paste wax as low as four and one-half cents per pound, by request, as well as liquid wax as low as sixteen cents per gallon. Both products were in fact free from any adulterating materials and were of average wearing power, body and

(*Turn to Page* 111)

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FLY SPRAYS

and other Insecticides on the English Market

Lawrence Allport*

London, England

THE general position and market situation of flysprays and associated insecticidal preparations in the United Kingdom is evidently similar in some respects to the position of these materials in the U.S.A. Most of the fly sprays are built up from a petroleum base and pyrethrum extract. Other liquid products are made up of cresylic acid, mirbane, sassafras oil, and ordinary kerosene. Some are mixtures of pyrethrum extract with these materials added. There is noted a tendency to use increasing quantities of deodorized kerosene as the base for liquid insecticides.

There is a very wide variation in the quality of products on the market in the United Kingdom. With some products displaying considerable effectiveness in killing insects, it is obvious that the very cheap types of which there are many, suffer greatly by comparison. Instances have been noted where fly sprays have been put on the market containing only one part of pyrethrum extract to 64 parts of kerosene. That the off-grade products, carrying the very minimum of toxic ingredients, are injuring the reputation of manufacturers and of the industry as a whole, is self evident.

The market for fly sprays and similar insecticides in England is not as well developed or organized as that in the United States. The composition of products does not follow as definite lines, based on the uses for which the products are recommended, as is the case in the U.S.A. Whereas fly sprays in the U.S.A. are generally manufactured from pyrethrum extract and petroleum oil, there are still on the United Kingdom market various all-purpose insect killers of varying and questionable composition. One product which is recommended for use against flies, as well as against other types of insects, both crawling and flying, such as roaches, beetles, wasps, moths, bed bugs and their eggs, etc., and which is used as a spray, has the following formula: Pyrethrum extract, 4 parts; cresol, 4 parts; mirbane or safrol, 3 parts. The material is mixed with kerosene so that the pyrethrum extract content is about 4 per cent. In other instances, similar formulas dilute the pyrethrum extract and other ingredients to the point where less than one per cent of pyrethrum extract is present.

Although the market is not as well organized and lags behind the U.S.A. market, progress among English manufacturers is being made. Research is being carried out along what appear to be sound lines, but as yet has not gone very far. Some work is progressing in finding means of making spray insecticides effective against insects which are protected by a horny shell or coat, and which the ordinary sprays do not seem to penetrate especially well. Fly sprays with increased solvent properties for attacking the outer covering of the bodies of insects, thus making even a small percentage of pyrethrum extractives effective, are being studied. The non-flammable and non-explosive solvents are receiving most attention, such as trichlorethylene and orthodichlorbenzene. These solvents are also believed to lend added insecticidal effectiveness to sprays which contain them.

With a wide variation in the quality of products on the United Kingdom market, there is naturally a similar wide variation in price. Like all commodities, the high grade products command the higher prices, but there is nothing resembling a standard level of prices for fly sprays in the United Kingdom. No present way exists to prevent the exploitation of completely worthless products. No association of fly spray manufacturers exists in England as it does in the U.S.A. to protect the trade and aid in discouraging at least to some extent the worthless insecticide. Comments on the present situation in the United Kingdom that the customer will soon drop the unscrupulous maker of useless products, are beside the point. Undoubtedly, the seller of worthless goods will be dropped, but this does not help the general status of the trade. It brings discredit upon the whole industry, and upon all manufacturers of fly sprays,—at any rate from the point of view of the customer,—and tends to cut down the use of all fly sprays.

* This is the *nom de plume* used by an English insecticide manufacturer, who for the time being at least, desires to remain anonymous in fact.

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1/3 H.P. G.E. MOTOR
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VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
COMPRESSOR TYPE
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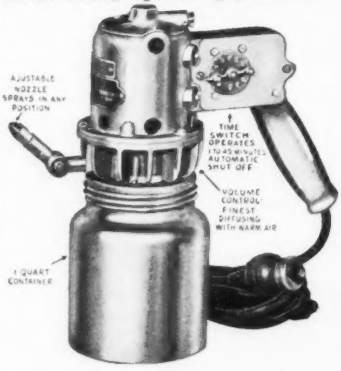
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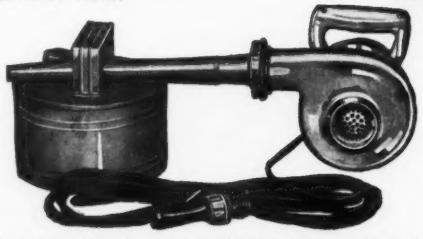
Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

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There should undoubtedly be a minimum standard established in the United Kingdom to which all makers should be compelled to adhere, and below which they could not go without the risk of prosecution. But this seems a long way off because, as I have said, we British makers have not yet attained a desirable level of co-operation.

Insect destroyers are mainly used by local institutions and other public bodies, stores, cafes, etc. and only comparatively little is sold to the general public direct. When the latter eventually become accustomed to their use,—and broadcasting the damage and disease spreading character of these pests will help,—they no doubt will demand an article that is efficient, and the demand in general is bound to increase. I do indeed feel that, in spite of the present short-sighted attitude of the trade, the market is one that is bound, eventually, to widen far beyond present limits.

It is obviously not of any help for firms who supply pyrethrum extract in the United Kingdom to omit the actual percentage of the active principle in their preparations. (Which figures are of course given in the U.S.A.) It would not, however, be asking too much to give the killing value or dilution,—then fair comparisons could be made between suppliers' products. The same could also be made compulsory on the maker of the finished spray, with a penalty for misstatements. This course is not too hard when it is considered what the preparation is supposed to do, and the value and health protection which it must bring as a result.

In presenting this short review of the manufacture of fly sprays in this country, I do so with the assurance that you will appreciate our difficulties. We are alive to the needs of an efficient article but so long as there is no fixed standard, or control, there exists competition of a kind that is not conducive to producing a high-grade article.

It is as a fly spray manufacturer, that I make these criticisms. The same is equally true of many other makers who could make fine products, except that others not so minded are interested only in immediate profits. What we need most are the following reforms: (1) Standardization of raw materials; (2) Minimum standard of finished spray (killing value); (3) Penalty for misstatements.

If these reforms were carried into effect, we should come into line with your people, to whom such benefits are almost if not an accomplished fact.

Insecticides and Germicides

(*From Page* 97)

ocarboxylic acid, in the presence of a metal halide condensing agent. These may be used directly as ingredients of insecticides or germicides, and further they are of particular value when sulfonated, the sulfonation products yielding valuable detergent and wetting agents useful as insecticidal, fungicidal, emulsifying, and dispersing agents.

Insecticidal Compositions. 2,062,911 (Dec. 1, 1936; appl. Feb. 26, 1936). Morris S. Kharasch, Chicago, Ill.—E. I. du Pont de Nemours & Co., Wilmington, Del.—A process for the protection of plants against leaf-eating insects, comprises applying thereto an insecticidal composition comprising a salt of Reinecke's acid (tetrathiocyanatodiamminochromium, $Cr(SCN)_4(NH_3)_2H$). For example, one part of piperidinium tetrathiocyanatodiamminochromium suspended in two hundred and fifty parts of water was used to spray potato plants infested with the Colorado potato beetle. More than ninety-five per cent of the beetles were killed and nearly all feeding was prevented.

Germicidal Preparations. 2,065,849 (Dec. 29, 1936; appl. Feb. 5, 1936). Carl N. Andersen, Wellesley Hills, Mass.—Lever Brothers Co.—A germicidal preparation of relatively low toxicity and adapted for use in suitable concentration in destroying bacteria in contact with tissue of a human being or other higher animal, comprises diphenylmercury pyro-borate.

Insecticide and Insect Repellent. 2,066,184 (Dec. 29, 1936; appl. Oct. 29, 1932). Louis A. Mikeska, Elizabeth, N. J.—Standard Oil Development Company—An improved insecticide, comprises a hydrogenated extract obtained by extracting petroleum oil with a solvent having a preferential solvent action for aromatic and unsaturated hydrocarbons of a petroleum oil separating the solvent from the extract, hydrogenating the separated extract and dissolving in the hydrogenated extract the active principles of a fish poisoning plant (e.g., derris and cube).

Paste and Liquid Waxes

(*From Page* 107)

gloss. Most readers would immediately jump to the conclusion that the wax content could be nothing more than paraffin. The paste wax had to have a solids content of approximately 29-30 per cent of wax. It had to be quite firm in the container, easy to apply, easy to buff, should be of normal drying time, be firm and hard when dry and not show smears to the touch.

While that appears to be a large order, it was not quite as difficult as it seems, although it is our personal belief that four cents per pound represents the ultimate in cheapness for raw materials in a pound of paste wax. In order to create this product, we proceeded as follows; first, we computed the cost of 100 pounds at the price specified which in this case was between four and one-half and five cents per pound making a total of from $4.50 to $5.00. Seventy per cent of the contents was to be solvent, so naphtha was chosen and the cost of ten and one-half gallons at eleven cents per gallon made $1.15 or a balance of from $3.35 to $3.85 for the remaining thirty pounds of wax. This represented a general average of slightly more than ten cents per pound for the wax.

Referring once more to our table of waxes, their gloss and hardness, we began to experiment with a blend of carnauba, candelilla, ceresin and paraffin. We found that it was possible to even use very small quantities of the higher melting point synthetic waxes because that allowed more play for the lowest point and softest wax-paraffin. Finally a blend of five waxes was worked out that fitted the price (on paper) and this was then made up into a sample with the solvent and tested. Certain corrections had to be made as after all the blend was based upon purely empirical data,—price. The product when finally finished had the necessary requirements.

DERRIS, INC.

79 WALL STREET
NEW YORK CITY

SPECIALISTS IN STANDARDIZED DERRIS POWDER, CUBE POWDER, AND ALL ROOT DERIVATIVES USED IN HOUSEHOLD, HORTICULTURAL AND AGRICULTURAL INSECTICIDES

JOBBERS

How many times have you received a letter like this?

Gentlemen:

How would you treat a concrete floor? (It may be wood or something else).

Even if you know how, would it not be wise to verify this by turning to our new book MODERN FLOOR MAINTENANCE? This book explains in illustrated detail proper treatment to recommend. Copies may be obtained by merely writing: **FREE**

T. F. WASHBURN COMPANY
Floor Maintenance Division
2244 Elston Ave., Chicago, Ill.

This new valuable book is at your service every day in the year. Write for your* FREE *Copy today.

Moth Control

The chemicals that have proved most effective for the control of moths are naphthalene and paradichlorobenzene, substances which slowly become volatile and in the gaseous state are either markedly distasteful to the insect or actually toxic. Camphor, which is sometimes used in tight chests and trunks, also exerts some restraining effect, but is not as good as either of the preceding chemicals. The same is true of pyrethrum powder.

Carbon disulfide is excellent for fumigation of closets which can be tightly sealed, as well as chests or trunks which are essentially airtight. The same is true of carbon tetrachloride. Sulfur fumes freshly prepared are also effective, but it is obvious that the latter can rarely be employed because of danger of bleaching and of reaction with metals. Ethyl dichlorine and ethylene oxide, especially when mixed with carbon dioxide or carbon tetracloride, have proved very effective.

There are a number of proprietary moth-proofing solutions which can be used as fine sprays or for injecting into furniture. Obviously only those which are free from odor can be used advantageously. Some of these have sodium silicofluoride as the principal ingredient with perhaps a small amount of common salt in solution as well. Others are organic compounds of more complex character which have been developed as secret formulas. What may be called permanent moth-proofing may be secured by certain substances which act like colorless dyes and may be fixed on the fabric by similar methods of treatment.

A great many impractical or worthless substances have been recommended to the housewife. Such things as cayenne pepper, lavender flowers, tobacco powder, pyrethrum stems, borax and lead oxide, as well as red cedar needles and cedar chips, are absolutely ineffective.

For wholesale disinfection, as for example in storage rooms for wool and fur, unquestionably the most effective method of treatment is by fumigation with hydrocyanic acid. This obviously must be conducted with the greatest of care and under expert supervision because of the danger to human life. Samuel C. Prescott. *Proc. Am. Assoc. Textile Chemists and Colorists* **26,** P9-10, 18-20 (1937).

—— ♦ ——

How Much Soap for Insecticide?

G. E. Marshall, codling moth investigator of the Purdue University Agricultural Experiment Station, finds a very important relation between the amounts of soap used in various spray materials, types of water, etc., and the efficiency of the insecticide or fungicide. In general, he finds that 3 1/3 ounces of a neutral soap are needed for soft water, while 8 ounces may be needed for deep well hard water, a range of 3 1/3 to 8 ounces per 100 gallons of spray of 4 pounds of lead arsenate and ½ per cent summer oil. If lime is used in addition to the other material, either alone or in the form of Bordeaux, it is necessary to increase the amount of soap. If Bordeaux is used at strengths which will control bitter rot, at best eight ounces of soap will be necessary in soft water, or 11 or more ounces per 100 gallons if hard water is used, these amounts being necessary to secure the best spreading of Bordeaux. In the absence of Bordeaux, if too much run-off occurs, as indicated by the collecting of the spray residue on the tips of the leaves, the soap should be increased in the next tank of material. When Bordeaux is used, too little soap will result in a splotchy cover, characteristic of lead, oil and Bordeaux. Too much soap will have a reaction identical to that of churning; the oil emulsion will be broken and the pure oil will combine with lead arsenate and soap to form a smeary mass not unlike butter, which will settle to the bottom of the tank. If the agitator is the beating type, such churning results will occur more readily than if the agitator is the circulation type produced by a screw or propeller agitator. At any rate, if the lead-oil-soap mixture curdles and settles to the bottom, less soap should be used.

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Deodorant Liquid

A disinfectant and deodorant oil contains a mixture of 30 parts of creosote, 30 parts of denatured alcohol, 100 parts of formaldehyde, 70 parts of terpentine, 2 parts of menthol, 3 parts of eucalyptus oil, 1 part of thymol and 5 parts of lemongrass oil. This is suitable for use in public toilets and similar places. *Seifensieder-Ztg.* **63,** 1024 (1936).

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Deodorant Composition

A deodorizing composition comprises a mixture of formaldehyde, sodium silicate and water, to which may be added an essential oil, caustic soda and soap. Alexander R. White. British Patent No. 450,717.

—— ♦ ——

Rotenone in Haiaris

Dry the powdered haiaris root in a desiccator. Extract 50 grams with dry carbon tetrachloride in a Soxhlet extractor for 12-14 hours. Concentrate the extract to about 25 cc. and filter while warm through a Jena sintered funnel into a weighing bottle, by gentle suction. Wash the residue on the filter 4-5 times with small quantities of warm carbon tetrachloride, concentrate the filtrate at 85° C. to a volume of 20 cc., cool in a desiccator, cover the cold bottle with a rubber cap and cool further to —5° C. Seed the cold extract with rotenone-carbon tetrachloride complex, allow to stand in a freezing chamber for about 22 hours, and then place in a freezing mixture at -10° for 10 minutes. Filter the precipitate immediately on to a weighed sintered glass filter and wash 4-5 times with carbon tetrachloride which has been chilled to -10° in a freezing mixture of ice and salt. A Dewar flask is used as a wash bottle, with a soda-lime tube at the mouth piece. Maintain the vacuum for about 5 minutes after the washings cease to come through, dry the precipitate overnight in a desiccator and weigh. L. A. Robinson. *Agr. J. British Guiana* **7,** 191-2 (1936).

THEATRES

Require Good Odors for Their Spray Work

Are you in a position to take care of their requirements? If not, you should acquaint yourself with

CEFCO
WATER SOLUBLE ODORS

at $2.50 per lb.

We refer you to our catalog for our regular listing and suggest you write us for testing samples

May We Create An Odor for Your Exclusive Use?

CHARLES FISCHBECK CO. INC.
NEW YORK

119 WEST 19th STREET
"Backed by a Quarter of a Century of Experience"

SWEEPING COMPOUNDS

for Jobbing Trade Only!

IT'S RED

"KLEENSWEEP"

THE PATENTED SWEEPING COMPOUND WITH THE SISAL BASE

•

IT'S GREEN

THE SWEEPING COMPOUND WITH THE SAWDUST BASE

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"SANISWEEP"

Our preparations will help you increase your sales on SWEEPING COMPOUND.

SWEEPING COMPOUND M'N'F'R'S CO. OF N. Y. INC.
421 BROOME STREET, NEW YORK

Calif. Drug Act Change

A bill has recently been introduced in the California State Assembly to amend the California Food and Drug Act. Under the proposed measure a drug would be deemed mislabeled or misbranded in either of the following cases: If it purports to be or is represented as a germicide, bactericide, disinfectant, or antiseptic for any use on or within the body and its labeling fails to bear a plain and conspicuous statement of such use, including the strength of dilution, manner, and duration of application, and when tested by a standard method, it does not have the germicidal effect within the duration so prescribed of a one to eighty dilution of phenol used by a standard testing method for ten minutes at thirty-seven degrees centigrade. All testing methods for the purpose of this paragraph shall be prescribed by regulations of the California State Board of Health. Provided, that no drug shall be deemed to be misbranded under this paragraph by reason of failure of its labeling to bear a statement of any advertised use if such advertising is desseminated only to members of the medical and pharmaceutical professions, or appears only in scientific publications of these professions.

New Insecticide Laws

A bill has recently been introduced in the Colorado State Senate to regulate the sale of agricultural chemicals and economic poisons. A similar measure, designed to prevent the sale of fraudulent, adulterated or misbranded insecticides and fungicides, has been introduced in the Arkansas Legislature as house bill No. 266. Full particulars on the proposed legislation may be obtained from the office of the secretary of the National Association of Insecticide & Disinfectant Manufacturers.

New Ripert Publication

A new addition to his published work on pyrethrum has just been made by Dr. M. J. Ripert under the title "De l'examen botanique des plantes servant aux etudes de chimie vegetale".

National Association of Insecticide *and* Disinfectant Manufacturers

OFFICERS

President.....**W. B. Eddy**
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MEMBERSHIP

Active Membership

All reputable persons, firms or corporations engaged in or allied with the business of manufacturing or distributing disinfectants, antiseptics, germicides, household insecticides, sanitary supplies, and/or articles coming within the purview of the Federal Insecticide Act of 1910 shall be eligible for Active Membership in the manner prescribed in the By-Laws.

Associate Membership

All reputable persons, firms or corporations engaged in the manufacture or distribution of raw materials, containers, packaging machinery, spraying devices or other articles, or services, normally purchased by Active Members of the Association shall be eligible for Associate Membership, to have and enjoy all the privileges of Active Membership but without the right to vote or hold office.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

122 E. 42nd STREET NEW YORK

HUDSON

Have A Heart . . . !

The Depression's Over!

For the last six years, all of us did the best we could with what we had. Now, the depression's over—we want something better—and we're willing to pay for it!

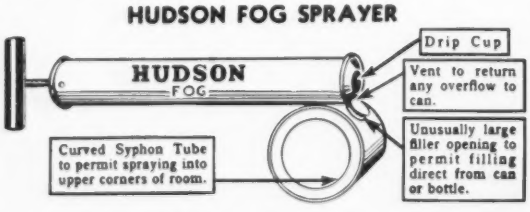
Tearfully, Mrs. America implores you to give her a sprayer that really kills insects—not one to merely molest them!

American housewives have been educated to the fact that spraying should be done up—not horizontally or down! But what's the use of a little popgun sprayer that won't throw a mist to the ceiling?

Where price is the only consideration, we supply "little" sprayers. But we'd rather sell you one that does a better job of killing insects. That's the Hudson Fog Sprayer—the perfect model for household use with a powerful blast that turns fly oils into a room-filling, death-dealing vapor.

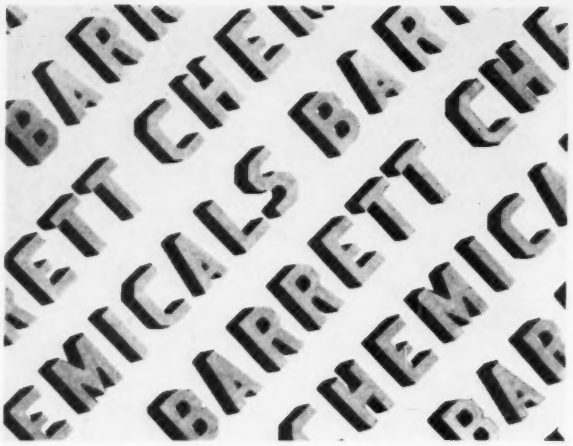
Supply it with your insecticide to get better results and more repeat business. Housewives are willing to pay the small difference in price!

HUDSON FOG SPRAYER


HUDSON
FOG
Drip Cup
Vent to return any overflow to can.
Unusually large filler opening to permit filling direct from can or bottle.
Curved Syphon Tube to permit spraying into upper corners of room.

Start 1937 off with a bang! Ask us about quantity prices on the Hudson Fog Sprayers. Your inquiry won't obligate you and it may result in bigger sales for your product. Write us today.

H. D. HUDSON MFG. CO.
589 EAST ILLINOIS STREET CHICAGO, ILLINOIS



CRESOL U.S.P.

Cresol Compound prepared from Barrett Standard Cresol U.S.P. contains less than 5% Phenol and falls well within the limitations of the Federal Caustic Poisons Act.

TAR ACID OILS, 10%-75%

Carefully blended oils ranging in tar acid content from 10% to 75% for manufacture of disinfectants.

CRESYLIC ACIDS

Grades of various distillation ranges depending upon requirements.

PHENOL U.S.P.

A pure white crystalline product, 40° C. minimum melting point.

HYDROCARBON OIL

A neutral coal-tar oil for high coefficient disinfectants.

SOLVENT NAPHTHA

Approximately 25° C. boiling range.

DIP OIL

A coal-tar base for animal dips.

THE BARRETT COMPANY
40 Rector Street **New York, N. Y.**

Barrett

CHEMICALS

Barrett Specification Roofs . . . Barrett Shingles and Roll Roofings . . . Protective Coal-tar Paints and Damp-proofing Materials . . . Tarvia and Tarvia-lithic, for road construction . . . Creosote Oil . . . Pipe Line Coatings . . . domestic Sulphate of Ammonia and Arcadian, the American Nitrate of Soda.

NEWS . . . . . .

Dethol Office Moved

The New York branch sales office of Dethol Mfg. Co. has been moved recently to new quarters at 160 East 56th St.

Sanitary Firms Exhibit

Flour City Brush Co., Minneapolis, Fuld Bros., Baltimore, Palmer Products, Waukesha, Wis., and Theo. B. Robertson Products Co., Chicago, represented the sanitary products industry with displays at the 20th convention of the National School Supplies and Equipment Association held at the Palmer House, Chicago, on February 15th to 18th.

New Detroit Firm Started

New Chemicals Co. has been organized in Detroit to manufacture floor wax, roach powder and a glass cleaning product.

Benz Products Assigns

A voluntary assignment for the benefit of creditors was made on February 2nd by Benz Products Co., Milwaukee, janitor supply jobbers. An inventory disclosed assets of $520 and liabilities of $2,468. Laurence H. Eiseman, 135 West Wells St., Milwaukee, has been named trustee for the benefit of creditors.

I & D Assn. Offers S-5 Change

The National Association of Insecticide & Disinfectant Manufacturers is proposing an amendment to the U. S. Federal Food and Drug law, S-5, which would exempt insecticide and disinfectant products from the provisions of this measure to the extent of the application of the Insecticide Act of 1910. It is pointed out that without such an amendment in the new food and drug law, it would if adopted lead to a split in jurisdiction and to much possible confusion and injustice to manufacturers of insecticides and disinfectants. The full text of the amendment suggested by the association is given as follows in a recent bulletin:

S-5 should be amended by adding at the end of Paragraph (h), Page 4, Line 16, the following:

", except that insecticide and disinfectant products shall be exempt from the provisions of this Act to the extent of the application or the extension thereto of The Insecticide Act of 1910, approved April 26, 1910, as amended (U. S. C., 1934 ed., title 7, secs. 121-134; 36 Stat. 331 et seq.)."

HR 300 should be amended by adding the above language at the end of paragraph (b), page 2, line 18.

A. C. in New Quarters

A. C. Exterminating Service Co., which recently branched out into the janitor supply field, has just moved to new quarters at Superior and 17th Streets, Cleveland. The new plant offers about four times the floor space available in the old location. L. A. McKenna, head of the concern, reports a good increase in business in recent weeks. The sales staff has just been increased by the addition of J. W. Corrigan who will specialize in industrial and institutional accounts.

Limit Washing Fluid Claims

Laborlite Manufacturing Co., Portland, Ore., has signed a stipulation with the U. S. Federal Trade Commission agreeing to cease representing that its trisodium phosphate washing preparation, designated "Laborlite," will sterilize or destroy all germs and will destroy all odors. It will also eliminate claims that it contains no harmful ingredients and is composed or harmless minerals.

Moonshine Chemical Co., Pittsburgh, selling "Moon-Shine Washing Fluid," signed a stipulation to discontinue advertising that the product destroys odors and kills germs, unless it is clearly indicated in connection with such representations that the product will not destroy all odors and will not kill all germs, including their spores; that it bleaches, removes stains and mildew, deodorizes, disinfects, and kills germs in one operation, and that it has a hundred helpful household uses.

Del-Tox Chemical Co., Baltimore, agrees to stop representations that its product "Del-Tox" disinfects as it cleans, sterilizes or kills all germs, and may be used for antiseptic deodorant baths.

Thomas With Midway

Midway Chemical Co., Chicago, has appointed Curt Ison Thomas as assistant advertising manager.

Sterling Laboratories Move

Sterling Laboratories, Indianapolis, manufacturers of insecticides and cleaning compounds, have just moved into new quarters at 132 S. Pennsylvania St.

N. Y. Food and Drug Act

Measures have just been introduced into the New York State Senate and Assembly to amend the State Public Health Law to prevent the manufacture and sale of adulterated or misbranded foods, drugs, cosmetics or health devices. Included in the bill is a proposal to set up a Consumers' Bureau in the Department of Health. The measure is being opposed by many manufacturers of products affected under the theory that state action at the present time is inadvisable, pending final enaction of a national measure.

Calif. Exterminators Meet

The third annual convention of the Exterminators and Fumigators' Association of California was held in the San Jose Civic Auditorium, San Jose, Calif., February 12 and 13. Election of officers at the conclusion of the meeting resulted in the selection of the following slate for the coming year: president, George A. Rader, of George A. Rader Co., Berkeley, succeeding Wilbur Smith, Alderman Co., Pasadena, retiring president; 1st vice-president, Wallace

The SUPREME change that would meet with nationwide approval, would be the change to deodorized base for all household insecticides.

We suggest you select

NONODR

The completely deodorized base for liquid insecticides.

MADE RIGHT **PRICED RIGHT**

O'CONNOR & KREMP

11 West 42nd Street **New York, N. Y.**

Sole Agents

BRADFORD PENN REFINING CORP.

Clarendon, Penna.

Your PROFIT Guide

Make Chemical Supply Co's new Price List & Catalog your "bible" for greater profits during 1937. It's chuck full of interesting products—at prices that enable you to buy economically. And the quality of each item is that good old Chemical Supply standard.

Be Sure to Have a Copy of This Price List and Catalog Handy at All Times.

Gladly Sent On Request

THE CHEMICAL SUPPLY COMPANY

2450 CANAL ROAD

CLEVELAND OHIO

"Your Most Logical and Economical Source of Supply"

B. Tanner, California Termite Control Co., Los Angeles; 2nd vice-president, Ernest G. Mills, Pacific Exterminator Co., San Francisco; secretary-treasurer, Elmer Roberts, Roberts Co., Burlingame, Calif.; new members of executive committee, Wilbur Smith, and Lee Christiansen, San Diego.

The meeting was the best attended so far in the organization's history, with a registration of one hundred and fifty. Included on the program was a series of clinics on such topics as "Rodents," "General Pest Control," "Fumigation," "Ants" and "Termites," which were an important feature of the convention. Legislative subjects were also discussed at length due to the consideration that is being given to changes in the state laws. The two-day session closed with a banquet the evening of February 13, with William O. Buettner as the guest speaker.

Buettner Returns to N. Y.

William O. Buettner, of Oscar G. Buettner & Sons, Brooklyn, secretary of the National Association of Exterminators and Fumigators, arrived back in New York late in February after an extensive trip in the interests of the association which took him to seventeen cities and as far west as the Pacific coast. His trip included stops at the following points: Pittsburgh, Lafayette, Ind., where he attended the Pest Control Conference, St. Louis, Kansas City, Memphis, Omaha, Denver, Los Angeles, Santa Barbara, San Diego, San Francisco, San Jose, Chicago, Minneapolis, Milwaukee, Cleveland and Buffalo. He attended local meetings of exterminators' associations in each district, reporting to them on conditions throughout the rest of the country.

Amer. Standard Issue Folders

American Standard Manufacturing Co., Chicago, mop and wax applicator manufacturers, is getting out a series of folders illustrating and describing the concern's complete line of mops. Sanitary products distributors may obtain copies by writing the manufacturer.

Henry Nelson's Fish

Right from the waters of the Gulf of Mexico came this 300-pound jewfish at the end of the line of

Henry A. Nelson, vice-president and general manager of the Chemical Supply Co., Cleveland, who was on a fishing jaunt down in Florida last month. Mr. Nelson (pictured on the right) in presenting his side of the case, following rumors in the trade that he was exploiting a stuffed fish, was emphatic in stating that the fish was alive and healthy, to the best of his knowledge, when he hooked it off Captiva, Florida.

New Insecticide Folder

Sherwood Petroleum Co., Brooklyn, has just issued a new folder "New Insecticide Specifications and the Peet-Grady Test". The full text of the new official test adopted by the National Association of Insecticide and Disinfectant Manufacturers is given, together with a review of the method of making the Peet-Grady test. Copies of the folder are available.

Check "Lysol" Advertising

Lehn & Fink, Inc., Bloomfield, N. J., have signed a stipulation drafted by the U. S. Federal Trade Commission agreeing that in advertising "Lysol" they will stop asserting that this product is "the" standard antiseptic in the sense that it is the official or scientific measure by which others are rated. It will also eliminate the claim that "Lysol" will protect from disease, unless the advertising indicates that the product's uses are generally limited to those of a household disinfectant and to cleansing instruments, appliances, and the person, and to prevent infection, promote antiseptic cleanliness, and destroy offensive odors. The company also stipulates that it will not advertise that doctors or nurses specify this preparation must be on hand in certain cases, or that it is effective for "marriage hygiene" as distinguished from "feminine hygiene."

Purcell Joins M-G-K

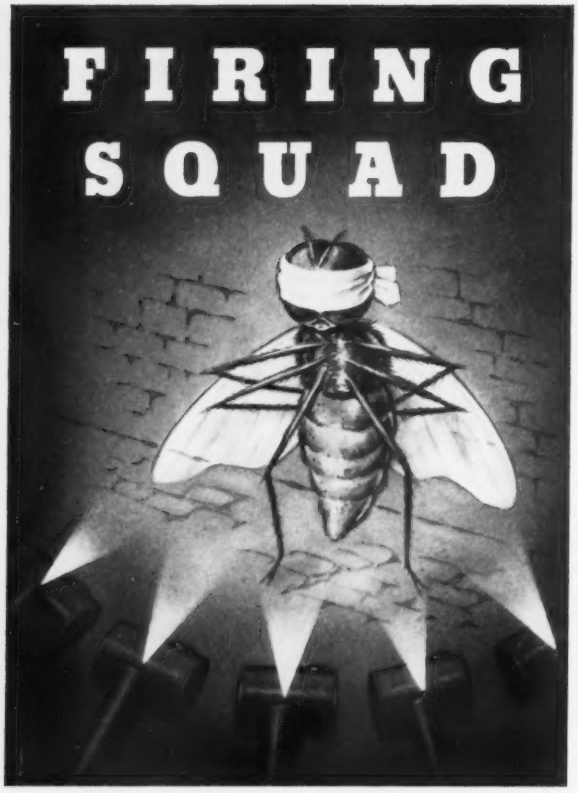
John W. Purcell joined the McLaughlin, Gormley, King Co., Minneapolis pyrethrum products manufacturers, as eastern sales manager on March 1. Mr. Purcell whose headquarters will be in New York, was formerly associated with the insecticide divisions of the Bowker Chemical Co. and the Sherwin-Williams Co.

Pyrethrum Extract Cut

Sharply lower prices have been quoted on pyrethrum concentrate over the past month, with the range on the 20-to-1 concentrate now from $3.40 to $3.50 per gallon, as compared with a level of $4.10 to $4.30 prevailing a month ago. This drop in concentrate prices does not reflect any similar decline in primary market prices on pyrethrum, as during the same period Japanese quotations on pyrethrum have in fact been advancing. The lower level of concentrates is rather the outcome of a rather sharp competitive situation in the concentrate supply field. At the low point, prices for 20-to-1 reached $3.00.

Zonite Adds Emollient

Zonite Products Corp., New York, has just purchased the formula copyrights and trademarks for "Bacon's Canadian Emollient," a skin lotion. Advertising and promotion of his new addition to the Zonite line will be under the direction of W. C. House.



Atlantic Ultrasene

—A BETTER BASE FOR BETTER INSECTICIDES

THE firing squad has caught up with Mr. House Fly. Insecticides are about to execute a long-sought public scourge. But when the firing ceases and Mr. Fly is dead, only eye-witnesses will be sure that it was insecticides which killed him. Mystery? Certainly not! Atlantic Ultrasene is the base in the insecticides, and Ultrasene-base insecticides leave *no* clue, *no* trace.

Atlantic Ultrasene is refined solely for use as a carrier for insect killers. Unlike a kerosene base, Ultrasene evaporates readily, leaves no unpleasant odor, no oily residue. That's why proprietors of places where food is stored or prepared — men who must constantly guard against dirt-collecting oil films and disagreeable odors in restaurants, hotels, markets — are demanding Ultrasene-base insecticides. That's why successful insecticide manufacturers are choosing Ultrasene for their spray-base.

Find out more about Atlantic Ultrasene. Our technical department will help you with further information and liberal experimental samples. The Atlantic Refining Company, Specialty Sales Department, 260 South Broad Street, Philadelphia, Pennsylvania.

ATLANTIC ULTRASENE

Baird's

99-100% CRESYLIC ACID

is different from the ordinary run of Cresylic Acid in that—

It is almost water-white in color and will so remain for a long time. Samples in test-tubes exposed to direct sunlight for three weeks showed no perceptible change in color.

It is entirely free from gassy odor. It has a characteristic odor of cresol and products made from it are not rendered "smelly" or objectionable.

98-99% CRESYLIC ACID

It is higher boiling than many cresylic acids now offered; hence it is better suited for use as a preservative and anti-fermentive in compounds which tend to turn rancid or sour.

It is uniform throughout, perfectly transparent and without a trace of cloudiness. Produced exclusively for us according to our own specifications in England, you are assured at all times of an acid of fixed standard and quality.

Your inquiries and orders are solicited. Samples will be gladly sent for testing, and quotations submitted on any quantity you can use, either for shipment from Holbrook, St. Louis or direct importation.

BAIRD & McGUIRE, INC.
Manufacturing Chemists
HOLBROOK, MASSACHUSETTS, U. S. A.
ST. LOUIS, MISSOURI, U. S. A.

Announce I. & D. Committees

W. B. Eddy of Rochester Germicide Co., Rochester, president of the National Association of Insecticide and Disinfectant Manufacturers, has just announced the complete list of association committee appointments for the coming year. The legislative committee has been split into several divisions as was recommended at the recent annual meeting. Another change is the creation of subdivisions in the insecticide committee to provide for special groups to consider winged and crawling insects. The complete list of committee appointments follows:

COMMITTEE APPOINTMENTS FOR 1937

Legislative Committee

John H. Wright, chairman
H. W. Hamilton, White Tar Co. of N. J.
J. R. Oppenheimer, West Disinfecting Co.

Sub-Committee on Disinfectants:

Dr. Emil Klarman, Lehn & Fink, Inc., chairman
W. A. Hadfield, General Laboratories, Inc.
B. H. Little, Hercules Powder Co.
C. L. Weirich, C. B. Dolge Co.

Sub-Committee on Insecticides:

Dr. Alfred Weed, John Powell & Co., chairman
Dr. A. E. Badertscher, McCormick & Co.
Frank Nelson, Stanco Distributors, Inc.

Disinfectant Committee, General

J. L. Brenn, Huntington Laboratories, chairman

Specifications and Standards:

Jack Varley, Baird & McGuire, Inc.

CRESYLIC:

Emil Klarmann, Lehn & Fink, Inc.
Leonard Schwarz, Clifton Chemical Co.
P. C. Reilly, Jr., Reilly Tar & Chemical Co.

COAL TARS:

J. H. Carpenter, Koppers Products Co.
S. H. Bell, S. H. Bell Co.
G. M. Baird, Baird & McGuire
Henry Nelson, Chemical Supply Co.

PINE OIL:

Melvin Fuld, Fuld Brothers, Inc.
W. H. McArdle, General Naval Stores
B. H. Little, Hercules Powder Co.

CHLORINE:

W A. Hadfield, General Laboratories, Inc.
John H. Wright
C. E. Enteman, Zonite Products Corp.

TESTING METHODS:

Dr. Emil Klarmann, Lehn & Fink, Inc.
Dr. H. D. Pease, Pease Laboratories
Dr. William Dreyfus, West Disinfecting Co.

LITERATURE AND PATENTS:

Dr. B. G. Philbrick, Skinner & Sherman, Inc.
Dr. George F. Reddish, Lambert Pharmacal Co.
Dr. F. D. Smith, Monsanto Chemical Co.

Antiseptic Committee

Dr. George F. Reddish, Lambert Pharmacal Co., chairman
Dr. Emil Klarmann, Lehn & Fink, Inc.
Dr. B. G. Philbrick, Skinner & Sherman, Inc.

Sanitary Specialty Committee

Clarence L. Weirich, C. B. Dolge Co., chairman
Henry Nelson, Chemical Supply Co.
Melvin Fuld, Fuld Brothers, Inc.
Leonard Schwarz, Clifton Chemical Co.

Membership Committee

A. L. van Ameringen, van Ameringen-Haebler, Inc., chairman
Fred Hoyt, Frederick Disinfectant Co.
F. J. Pollnow, Vestal Chemical Co.
I. P. MacNair, MacNair-Dorland, Inc.
Russell Young, Davies-Young Soap Co.
R. S. Solinsky, National Can Co.

Insecticide Committee, General

H. A. Thomas, Shell Petroleum Corp., chairman
E. G. Rude, Rex Research Corp., vice-chairman
Wallace Thomas, Gulf Oil Corp.
N. J. Gothard, Sinclair Refining Co.
William J. Zick, Stanco, Inc.

Sub-Committee on Specifications and Standardization:

WINGED INSECTS:

Wallace Thomas, Gulf Oil Corp.
A. E. Badertscher, McCormick & Co.
S. B. Penick, Jr., S. B. Penick & Co.
H. R. Berry, Shell Petroleum Corp.

CRAWLING INSECTS:

Robert C. White, Jr., Robert C. White Co.
Charles F. Opitz, John Opitz, Inc.
R. J. Prentiss, R. J. Prentiss & Co.
D. F. Murphy, Rohm & Haas Co.
W. F. Kroneman, Sherwood Petroleum Co.
Earl Ament, Dethol Mfg. Co.

TESTING METHODS:

Dr. Alfred Weed, John Powell & Co., chairman
C. A. Murray, Baldwin Laboratories
Hugh R. Berry, Sherwood Petroleum Co.
Talbot J. Albert, Black Flag Co.
Dr. A. E. Badertscher, McCormick & Co.
Dr. W. A. Simanton, Gulf Research & Development Corp.
F. C. Nelson, Stanco Distributors, Inc.
G. A. McLaughlin, McLaughlin, Gormley King Co.
Wallace Thomas, Gulf Oil Corp.
Dr. F. L. Campbell, Ohio State University
N. J. Gothard, Sinclair Refining Co.
D. F. Murphy, Rohm & Haas Co.
W. J. Anderson, Flash Mfg. Co.
Dr. L. A. Hawkins, Bureau of Entomology and Plant Quarantine, Dept. of Agriculture
J. E. Armstrong, Rex Research Corp.

LITERATURE AND PATENTS:

John Curlett, McCormick & Co.
William Zick, Stanco, Inc.
P. Berman, L. Sonneborn Sons

Publicity Committee

Ira P. MacNair, MacNair-Dorland Co., chairman
Russell Young, Davies-Young Soap Co.
John Powell, John Powell & Co.

Convention Committee

John H. Wright, chairman

ARRANGEMENTS:

John Powell, John Powell & Co.

PROGRAM:

J. A. Walsh, Rochester Germicide Co.

ENTERTAINMENT, JUNE:

R. O. Jackson, West Disinfecting Co.

ENTERTAINMENT, DECEMBER:

L. J. LaCava, Continental Can Co.

Levenson Chemical Moves

Levenson Chemical Co., Omaha, Nebr., has recently moved to new quarters at 1407 Harney St.

Wants Cattle Dip Agency

A concern in Buenos Aires, Argentina, is interested in securing an agency for sale of cattle dips of American manufacture. Interested concerns may communicate through the U. S. Bureau of Foreign and Domestic Commerce, mentioning inquiry number 2528.

Modess Expands Line

Modess Corp., New York, has announced a complete new program which includes a change in name to Personal Products Corp. and an expansion in its line of products. The first product to be added will be "Couettes", this item having been taken over from Johnson & Johnson, New Brunswick, N. J., as of February 15. These cotton pads will be featured for the application of all types of liquids.

Seligs Sail to S. A.

Mr. and Mrs. Simon Selig sailed February 17 on the *S. S. Aquitania* for a cruise to South America. Mr. Selig is head of Selig Co., Atlanta.

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FLOOR FINISHES

Years of laboratory experimentation and more years of practical testing were required to bring Federal Finishes to their high standard of perfection. Only Federal Finishes embody to such a high degree the combination features of greatest beauty—long life, resistance to wear and washing and economy of use.

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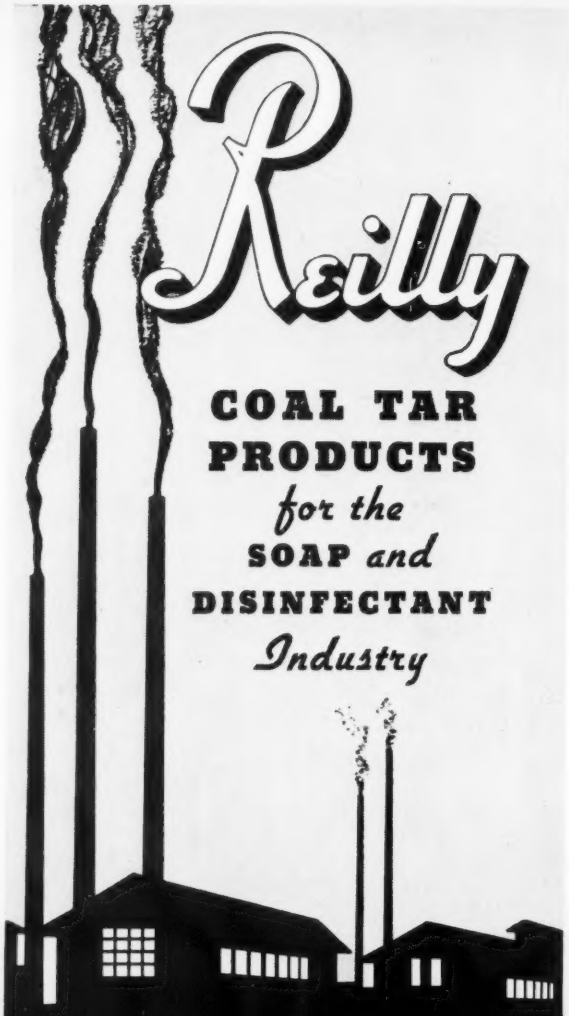

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COAL TAR PRODUCTS *for the* **SOAP** *and* **DISINFECTANT** *Industry*

CRESOL • CRESYLIC ACID
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TAR ACID OILS • NAPHTHALENE

•

and Reilly Roofing Materials

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Executive Offices: Merchants Bank Building Indianapolis, Indiana

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500 FIFTH AVE., NEW YORK, N. Y.
ST. LOUIS PARK, MINNEAPOLIS, MINN.

Drug Club Elects Huisking

Joseph A. Huisking of Chas. L. Huisking & Co., has been elected president of the New York Drug & Chemical Club. Edward J. Sisley is vice-president, J. L. Powell, secretary, and A. A. Teeter of Charles Pfizer & Co., treasurer. New members of the board of governors are William D. Barry of Mallinckrodt Chemical Works, H. B. Lamy, Jr., and H. W. Rogers.

Leading 1936 Advertisers

The following figures showing advertising expenditure by firms in the soap, insecticide and toiletries field during 1936 are taken from a recent survey made by *Printers' Ink*. They are based on figures collected by the Publishers' Information Bureau:

	Totals	
	1936	1935
Procter & Gamble Co.	5,786,147	4,500,359
Bristol-Myers Co.	3,165,296	2,362,945
Colgate-Palmolive-Peet Co.	2,969,577	2,803,135
Lever Bros. Co.	2,828,419	2,428,039
Lambert Pharmacal Co.	1,746,010	2,048,374
Pepsodent Co.	1,712,157	1,722,073
Jergens-Woodbury	1,414,661	1,477,786
Lehn & Fink Prod's Co.	1,097,144	892,491
Watkins Co., R. L.	624,459	411,596
Bon-Ami Co.	492,880	564,100
Fels & Co.	480,719	280,291
Babbitt, Inc.	378,796	97,218
Johnson, S. C. & Son, Inc.	376,490	428,231
Fitch, F. W. Co.	368,381	291,628
Kolynos Co.	352,776	387,089
Zonite Products Corp.	314,240	393,783
Pacific Coast Borax Co.	299,393	242,363
Drackett Products Co.	289,400	294,275
Simoniz Mfg. Co.	270,780	241,664
Williams Co., J. B.	228,034	241,547
Molle Co.	217,139	99,258
Mennen Co.	201,997	190,466
Church & Dwight Co.	127,916	140,484
Barbasol Co.	74,136	65,805
Barbasol & Bost	110,090	225,802
Armour Soap Works (Luxor Ltd.)	62,864	92,302

Form Tombarel Products Corp.

Tombarel Products Corp., 9 East 19th St., New York, has been organized to represent the French firm of Tombarel Freres in United States. A. J. Zollinger for the past five years vice-president of Albert Verley, Inc., Tombarel's former representatives, and manager of their New York office, heads the new concern. They will offer a full line of perfuming materials for soaps, cosmetics, perfumes, etc., including all of the Tombarel essential oils and specialties. The business, good-will and trade mark of Robert Freres, Grasse, France, has also been acquired, insofar as the United States, Canada and Cuba are concerned. Arrangements have been made permitting Albert Verley, Inc., to sell Tombarel products to certain of their customers.

Armstrong Heads Oil Assn.

The Essential Oil Association of United States named A. D. Armstrong of Fritzsche Bros., New York, as president for the coming year at a recent meeting. Other officers are: vice-president, H. C. Ryland, of H. C. Ryland, Inc.; secretary, F. W. Stichweh, of James B. Horner & Co. The executive committee is composed of the officers mentioned above and F. Webber of George Lueders & Co., and Kenneth Voorhees of Ungerer & Co.

Propose Price Filing

A bill under which legal schedules of minimum prices for trademarked articles would be filed with the U. S. Patent Office is now under consideration by Representative Wright Patman of Texas. Under the terms of the proposed law these would have to be observed by wholesalers and retailers. Enforcement would be by cease and desist orders, issued by the Federal Trade Commission.

D. & O. Sales Meeting

The annual sales meeting of Dodge & Olcott Co., New York perfuming materials house, was held at the main office during the week of February 8, with branch managers and the full staff of out of town salesmen in attendance. The conference included three business sessions and a banquet at the Hotel Lafayette. Guests of honor were William G. Moore, manager of the Chicago branch, and F. C. Allen, treasurer of the company. Mr. Moore has just completed his fiftieth year with the company, and Mr. Allen is now in his fiftieth year. In point of service H. I. Cooper, Philadelphia manager, has the longest record of fifty-two years with the company.

Zonite Advertising Agent

Advertising for Zonite Products Corp., New York, is now being handled by Street & Finney, Inc., New York agency.

Lurie Laboratories Move

Lurie Laboratories, formerly located at 1835 N. New Jersey St., Indianapolis, moved recently to 132 S. Penn St.

Drug Sales Up 6.6%

Total sales of chain drug stores in 1936 showed an advance of 6.6 per cent from 1935 figures, according to figures just released by the U. S. Bureau of Foreign & Domestic Commerce.

Bennett Drug Dinner Speaker

John J. Bennett, Jr., attorney general of the State of New York, will be the guest speaker at the 12th annual dinner of the Drug, Chemical and Allied Industries, which will be held at the Waldorf-Astoria, New York, March 4. A. K. Mayer of Kiefer-Stewart Co., Indianapolis, will be toastmaster. The program for the dinner as announced by R. D. Keim of E. R. Squibb & Sons, chairman of the program committee, calls for the reception to start at 6:00 P.M. this year, with the starting hour for the dinner being pushed ahead to 7:30 P.M.

Calcyanide Co. Bought

American Cyanamid Co., New York, has just taken over by purchase Calcyanide Co., formerly a subsidiary of Air Reduction Corp., New York. Calcyanide Co. is sales agent for calcium cyanide imported from Germany. The purchase rounds out Cyanamid's line of fumigating materials. B. Towlen, formerly with Calcyanide Co., remains with Air Reduction Corp.

Feltons Announce Birth of Son

Mr. & Mrs. Robert E. Felton announce the birth of a son, George Ellis. Mr. Felton is the southern representative of the Felton Chemical Co., with offices in New Orleans.

O.K. THE RIGHT SPRAYER FOR YOUR PRODUCTS

No. 35G—3 Qts.

No. 33G—3 Qts.

No. 43G—3 Qts.

No. 10—1½ Gals.

√ 35G—A high pressure chemical sprayer with patented air regulator. "Controlled Atomization." A forceful penetrating spray or a fine floating fog with in-between variations by a simple adjustment. O.K.

√ 33G—A large continuous chemical sprayer. Handles oil sprays, chemicals, disinfectants, and insecticides. Two-way nozzle—sprays up or straight ahead. O.K.

√ 43G—A lever controlled sprayer. Can be operated either as a pressure or a continuous sprayer. A sprayer of many and varied uses. O.K.

√ 10—A high pressure floor oil sprayer that assures effective and controlled application with ease. O.K.

Dobbins High Pressure Sprayers will sell more of YOUR PRODUCTS. O.K.

Write today for our new illustrated catalog No. 44.

DOBBINS MANUFACTURING CO.
NORTH SAINT PAUL MINNESOTA

SPECIALTY SOAP PRODUCTS

Liquid Soap Base
Potash Oil Soap
Liquid Soap
U. S. P. Green Soap
U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
Insecticides
Liquid Floor Wax
Auto Soaps
Shampoo
Pine Oil Soap
Shampoo Base

We manufacture for the trade only

HARLEY SOAP CO.,
2852 E. Pacific St.,
Philadelphia, Pa.

Ask for samples of above specialty bulk products.

PYRETHRUM EXTRACT

odorless—stabilized

Two Concentrations
20 to 1 5 to 1

From direct imported flowers, we manufacture pyrethrum extracts of standard strength in deodorized petroleum base,—and stabilized against deterioration. These extracts are sold at prices competitive with ordinary extracts.

Other HAMMOND Products

Pyrethrum Flowers—Granulated ready for percolation.
Rotenone Extracts—Standardized and stabilized against deterioration.
Rotenone-Pyrethrum Extracts—Various concentrates in combinations as required.

Ask us for further information.

HAMMOND
Paint & Chemical Co.
BEACON NEW YORK

Offer New Fruit Spray

A new agricultural insecticide for the protection of fruit against the coddling moth has just been introduced by E. I. du Pont de Nemours & Co. under the name "Phenothiazine." It is said to be non-toxic to human beings even when taken internally in small amounts, and with its use only simple washing is necessary in preparing fruit for market, avoiding the necessity of undesirable high temperatures. In comparing the efficiency of the new product with the usual lead arsenate spray, it was found to be much superior. When fruit was sprayed with three pounds of "Phenothiazine" in 100 gallons of water, 96.9 per cent of the apples were clean after exposure, 2.2 per cent were "stung," and 1 per cent wormy. This compares with 55 per cent clean, 37.9 per cent "stung," and 9.6 per cent wormy after treatment with a lead arsenate spray.

New Wall Paper Cleaner

Cleveland Cleaner & Paste Company, Cleveland, will bring out a new wall paper cleaner this spring to be named "Velvet Wall Paper Cleaner." A semi-national advertising campaign was to begin about March 1. Radio, outdoor, and in some sections co-operative newspaper advertising will be used.

Cosmetic Formulary

The Cosmetic Formulary has just been published by Chemical Publishing Co., New York. 6 x 9¼. 280 pages. $3.75. It includes a series of formulas for a variety of products, including soaps, creams, dentifrices, shaving and bath preparations, powders, rouges, lipsticks, hair and eye preparations, etc. Also included in an appendix is data covering raw materials, sources of supply and tabular references.

F. T. C. Checks Cleaner Claims

The U. S. Federal Trade Commission has ordered Joseph Lewin, trading as Leev-No-Ring Chemical Co., New York, to stop representing, through the use of the phrase "Leev-No-Ring" in his trade name and in advertising, that the cleaning fluids he sells will remove all grease spots instantly without injury to the most delicate fabrics and will not in any instance leave a ring.

McCormick Pays Dividend

McCormick & Co., Baltimore, have recently paid the quarterly divident on their 8 per cent preferred stock to holders of record January 26.

Set Chemical Show Date

The sixteenth Exposition of Chemical Industries will be held at the Grand Central Palace, New York, December 6-11, 1937, according to plans just announced by Charles F. Roth of International Exposition Co. A feature of publicity for the coming exposition is a slogan contest. Prizes will be awarded for the best slogans typifying the role of chemical industry in modern life.

France to Tax Synthetics

A law designed to minimize adulteration of perfuming materials has recently been passed by the French Chamber of Deputies, it is reported, which would impose a tax of two or three per cent of all materials used in perfumes except French essential oils. The proceeds of the tax would be used to build a reserve fund for essential oil producers in years of low prices. The law was considerably revised before final adoption, and weakened materially. In its original form it would have made adulteration of flower essences with synthetics practically impossible.

Farbro Picks Agency

United States Advertising Corp., has been appointed to handle the account of Farbo Wax Corp., Baltimore, maker of "Cellowax."

Strobl to California

E. J. Strobl, of Albert Verley, Inc., Chicago essential oil house, started last month on an extended trip to California and the Southwest.

F.T.C. Cites Trade Labs.

Use of unfair methods of competition, including fictitious price marking, is alleged by the U. S. Federal Trade Commission in a complaint issued against J. C. Brush, C. R. Dickinson and C. V. Brush, 412 Halsey St., Newark, N. J., and six corporations which they direct and control, all engaged in the sale and distribution of shaving and dental creams and other toilet goods. The corporate respondents are Trade Laboratories, also trading as Redd Chemical Co., Modern Brands, Inc., Perlox Laboratories, Pearl-White Laboratories, and Dr. Daily's Laboratories. Several brands of shaving and dental creams sold by the respondents allegedly are marked by them with retail prices ranging from 35 to 60 cents, which, according to the complaint, are not intended to be the true retail prices of the merchandise so marked, and which are far in excess of the true retail prices intended to be charged.

Barium Soap Insecticides

A barium soap is prepared by saponifying a drying oil by heating in an autoclave with water and 2/3 the amount of barium hydroxide required for complete saponification. The mass is then allowed to cool and the glycerine-containing water withdrawn. Among other applications, the soap is useful as a constituent of insecticidal preparations. Camille Deguide. British Patent No. 450.288.

Whale Oil Production

The annual report of the Norwegian Whale Catchers' Association, just published for 1936, gives the quantity of whale oil produced in the Antarctic in the season 1935-36 as 2,412,583 barrels. Some 23,755 barrels of sperm oil was also produced. Of this quantity expeditions under companies belonging to the association produced 1,621,300 barrels.

Eway Products Co. Moves

Eway Products Co., soaps, Chicago, has recently taken new quarters at 4860 Berenice Ave.

You get this
PERFECT COMBINATION
in BENETCO
STEEL PAILS *and* DRUMS

ATTRACTIVE APPEARANCE that gets favorable attention and emphasizes the quality of your product . . .

STURDY CONSTRUCTION that protects your Insecticides, Disinfectants, Soaps and Chemicals.

DEPENDABLE SERVICE that always meets your product and sales requirements . . .

Give your products the advantages of these perfect containers . . . Request catalog and prices now!

WILSON & BENNETT MFG. CO.
6528 SO. MENARD AVE., CHICAGO
Phone: Republic 0200
JERSEY CITY, N. J.
Phones: Delaware 3-4700—
Cortlandt 7-0231
NEW ORLEANS, LA.
Phone: Galvez 2171
Sales Offices and Warehouses in Principal Cities

STRAIGHT SHOOTING

Let us place our experience and knowledge of world markets at your disposal.

CHEMICALS
INSECTICIDES
OILS—WAXES

H. H. ROSENTHAL CO., INC.
25 EAST 26th ST. NEW YORK, N. Y.
Cable Address: RODRUG, N. Y.

SANITARY PRODUCTS

Jobbers

VICTORIA manufactures a complete line of cabinet and roll tissues.

You are in a position to meet price competition with trade-marked, nationally known products. Write today for complete information.

Victoria Toilet Tissues

VICTORIA PAPER MILLS COMPANY
Founded 1880
FULTON, NEW YORK

4th Quarter 1936 Fat Data

Factory production of fats and oils in United States for the 4th quarter of 1936 totaled 1,639,450,059 lbs., according to a report of the U. S. Bureau of the Census just issued. This total was made up as follows: Vegetable oils 962,461,810 pounds; fish oils, 123,684,032 pounds; animal fats, 463,972,067 pounds; and greases 89,332,150 pounds. The largest production, 621,472,877 pounds, appears for cottonseed oil. Next in order is lard with 311,087,532 pounds; tallow with 151,259,271 pounds; linseed oil with 131,898,873 pounds; soybean oil with 60,044,691 pounds; and coconut oil with 53,141,660 pounds.

Data for factory production, consumption, imports, and stocks of certain of the individual fats and oils for the three month period appear in the following tables:

Russia Soap Output Jumps

The Soviet Union in 1936 produced six times as much soap, and eight times as much cosmetics, eau de cologne and perfumes as tsarist Russia in 1913. Total production of the soap, perfume and cosmetics industry amounted to 650 million rubles (about 130 million dollars). The planned production for this year has been placed at 850 million rubles, acording to P. Zhemchuzhina, head of the Soviet administration of the soap, perfume and cosmetics industry. She also estimated, to give some conception of the industry's year-to-year increase here, that Soviet soap works produced 65 million more cakes of toilet soap and 16 million more bottles of perfume in 1936 than in 1935.

This anual rise in output is being effected by increased mechanization of the industry and growing labor efficiency, the latter significantly spurred on by the Stakhanov movement for higher productivity, and expansion in new plants and laboratories. One of the industry's biggest construction projects at the present time is that of a 75-million ruble combine for the manufacture of synthetic oils, perfumes and cosmetics in the city of Kaluga, Moscow Province. At full capacity, the plant will have a staff of more than 6,500.

Old Russia did not produce any synthetic perfumes, according to D. M. Arsenyev, engineer in charge of the Kaluga project. This industry became possible after chemical plants and research laboratories had been completed late in the First Five Year Plan, (which ended in 1932). At present, 75 types of synthetic perfumes are produced in the U.S.S.R.

PRODUCTION, CONSUMPTION, AND STOCKS OF FATS AND OILS

KIND	Factory operations for the quarter ending Dec. 31, 1936 — Production (pounds)	Consumption (pounds)	Factory and Warehouse stocks Dec. 31, 1936 (pounds)
VEGETABLE OILS:			
Cottonseed, crude	621,472,877	575,366,405	143,385,529
Coconut or copra, crude	53,141,660	143,564,585	59,551,067
Corn, crude	28,582,770	37,131,056	11,635,556
Soybean, crude	60,044,691	54,223,945	20,303,343
Olive, inedible		2,483,371	2,483,364
Sulphur oil or olive foots		6,922,917	7,023,651
Palm kernel, crude	Not given separately	13,738,681	12,530,802
Linseed	131,898,873	78,114,298	117,267,639
Castor	19,010,956	9,971,107	12,134,164
Palm		77,914,136	92,030,197
Babassu	Not given separately	4,793,052	1,912,625
FATS, GREASES, ETC.:			
Tallow, inedible	125,630,117	197,246,139	244,034,162
White grease	16,401,516	9,818,409	7,101,513
Yellow grease	18,129,323	12,918,346	13,296,986
Brown grease	17,590,730	15,698,201	14,024,565
Garbage or house grease	12,129,560	11,914,147	14,562,747
Hydrogenated oils	248,298,425	225,025,172	22,402,338
Stearin, animal, inedible	5,947,868	4,631,894	7,425,364
Oleo oil	26,707,148	6,580,270	4,326,292
Lard oil	9,705,760	4,537,741	3,794,508
Tallow oil	2,243,218	1,728,591	1,711,705
Fatty acids	34,487,908	33,356,451	8,578,710
Red oil	12,170,266	7,755,090	7,292,348
Stearic acid	9,570,483	3,691,665	4,535,773
Glycerin, crude 80% basis	42,380,546	45,887,291	9,212,942
Glycerin, dynamite	13,714,529	9,140,197	11,418,611
Glycerin, chemically pure	26,104,171	6,655,715	13,351,309
Cottonseed foots, 50% basis	61,776,868	65,078,599	21,880,173
Other vegetable oil foots	30,285,788	26,817,640	3,167,627
Acidulated soap stock	28,049,518	27,666,400	28,852,309
Miscellaneous soap stock	1,669,207	561,084	1,875,465

FATS AND OILS IMPORTED FOR CONSUMPTION

KIND	POUNDS
Whale oil	10,579,328
Tallow, inedible	1,860,226
Oleic acid or red oil	40,692
Stearic acid	216,220
Cottonseed oil, crude	2,357,384
Coconut oil	85,399,326
Palm oil	92,180,298
Sulphur oil or olive foots	9,242,474
Other olive oil, inedible	3,343,627
Palm kernel oil, inedible	8,960,894
Soybean oil	459,512
Fatty acids, vegetable	1,139,435
Other expressed oils, inedible	1,018,019
Glycerin, crude	4,328,522
Glycerin, refined	1,863,253

Soap Prices in Parliament

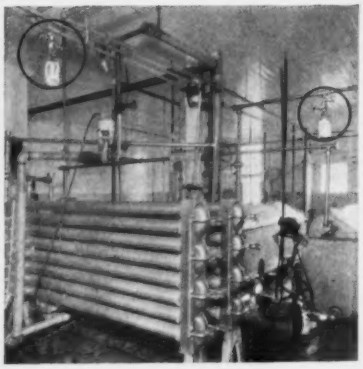
Will Thorne, veteran British Socialist politician, asked in the House of Commons recently why soap prices had risen and what the Board of Trade was going to do about it. Dr. Leslie Burgin, Parliamentary Secretary to the Board of Trade, replied that soap had gone up solely because the oils and fats used in its manufacture were dearer all over the world. This being the case, there was no question of the Board of Trade taking any action.

Lever Buys Shipping Firm

Jurgens-Van den Bergh Margarine Union, the German subsidiary of the Unilever soap and vegetable oil combine, has acquired majority, about 85 per cent of the share capital of the leading shipping company on the River Elbe, the Neue Norddeutsche und Vereinigte Elbe-Schiffahrts A.G., known as the N.N.V.E.

Cuban Oil Duties

Minimum duty rates on imports of red palm oil and coconut oil into Cuba for soap making have been extended to apply until April 2, 1937. The rates apply regardless of country of origin.



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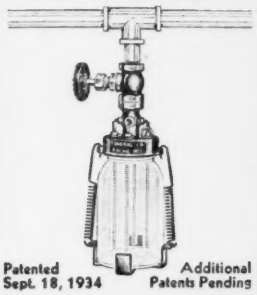

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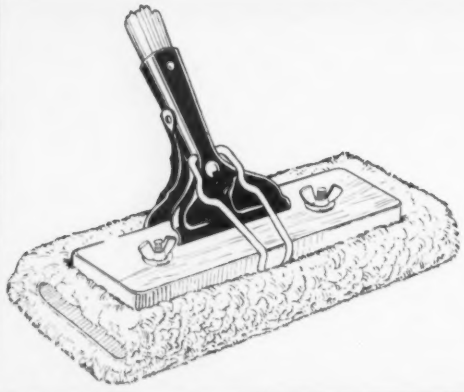

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